



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

LB2802

.N5P9

1850

SPEC.  
COLL.

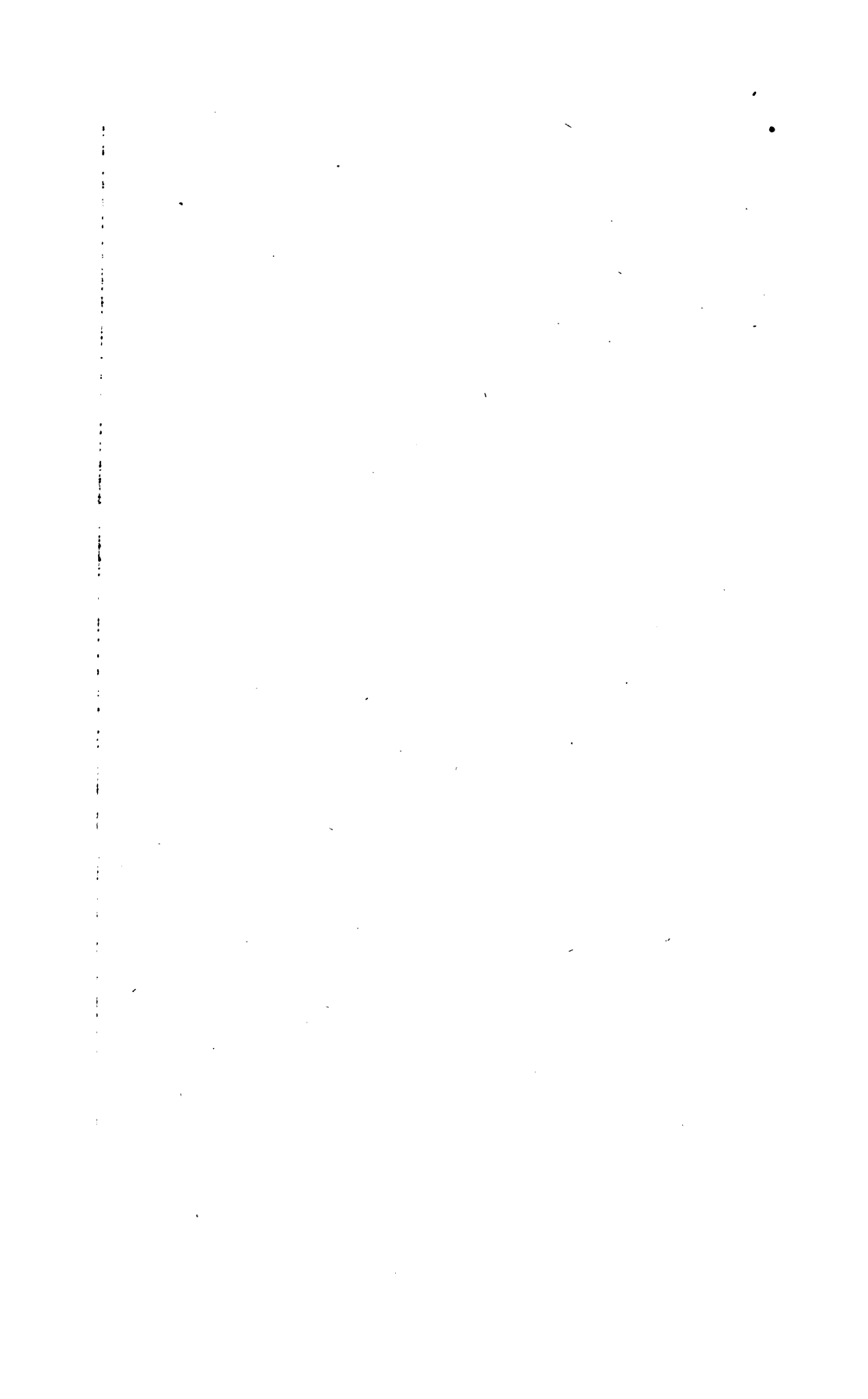
**HARVARD UNIVERSITY**



**LIBRARY OF THE  
GRADUATE SCHOOL  
OF EDUCATION**



3 2044 096 983 051







**A MANUAL**  
**OF**  
**THE SYSTEM OF DISCIPLINE & INSTRUCTION**  
**FOR**  
**THE SCHOOLS**  
**OF**  
**THE PUBLIC SCHOOL SOCIETY**  
**OF**  
**NEW-YORK,**  
**INSTITUTED IN THE YEAR 1805.**

---

**NEW-YORK:**  
**EGBERT & KING, PRINTERS, 374 PEARL STREET.**

---

**1850.**



*Special Coll.*

*LB2802*

*.N5P9*

*1850*

HARVARD UNIVERSITY  
GRADUATE SCHOOL OF EDUCATION  
MONROE C. GUTMAN LIBRARY



# CONTENTS.

## PART FIRST.

|   |    |
|---|----|
| Of the School-House and its Premises, - - - - - | 5  |
| Government, - - - - -                           | 6  |
| Regulations by the Clock—Punctuality, - - - - - | 15 |

## PART SECOND.

|  |    |
|--|----|
| Division of the School into Classes, - - - - - | 17 |
| Opening School, - - - - -                      | 18 |

## PART THIRD.

|  |    |
|--|----|
| Classification of Instruction, and suggestions for Teaching, - - - | 21 |
|--|----|

### STUDIES IN THE PRIMARY SCHOOLS.

|                                       |    |
|---------------------------------------|----|
| Writing and Dictation, - - - - -      | 22 |
| Arithmetic, - - - - -                 | 28 |
| Reading, - - - - -                    | 30 |
| The origin of Vocal Sounds, . - - - - | 34 |
| Geography, - - - - -                  | 35 |

### STUDIES IN THE UPPER SCHOOLS.

|   |    |
|---|----|
| Reading, - - - - -  | 41 |
| Writing, - - - - -  | 43 |
| Dictation, - - - - -  | 45 |
| Arithmetic, - - - - -                                       | 47 |
| Geography, - - - - -  | 48 |
| Grammar, - - - - -  | 49 |
| Astronomy, - - - - -  | 50 |
| Short Oral Lessons on the Natural Sciences, - - - - -       | 51 |
| Object Lessons, or Instructions in Common Things, - - - - - | 53 |
| Instructions in Sewing, - - - - -                           | 58 |
| Distribution and Classification for Sewing, - - - - -       | 61 |

## PART FOURTH.

|   |    |
|---|----|
| Mechanical organization for carrying out the Discipline and Instruction of<br>the School, - - - - - | 67 |
| Evolution for General Exercises in Drafts, - - - - -  | 71 |
| Duties of the Monitors of Instruction, - - - - -  | 72 |
| Monitors of the Mechanical Operations of the School, - - - - -                                      | 73 |

## APPENDIX.

|   |     |
|---|-----|
| Ventilation, &c., - - - - -                           | 75  |
| Records, - - - - -                                    | 80  |
| Diary of School Exercises and Blank Forms, - - - - -  | 90  |
| Rules and Regulations of the Library, - - - - -       | 95  |
| Arithmetical Key, - - - - -                           | 99  |
| A System of Writing, - - - - -                        | 112 |
| List of Words for Dictation, - - - - -                | 117 |
| Synopsis of the Manual for Primary Schools, - - - - - | 119 |
| Plans of School Buildings, &c., - - - - -             | 124 |



# MANUAL.

---

## PART FIRST.

### OF THE SCHOOL-HOUSE AND ITS PREMISES.

As the plans of the school buildings, furniture, and appliances for ventilation, will be found in an Appendix to this Manual it is only necessary now to premise, that it is highly important that provision should be made for a play-ground, accessible to the pupils during the daily recesses of the school and before the opening; so that they may be induced to assemble there for recreation, rather than in the streets. To render it convenient and comfortable to them at all times, during either sunshine or inclemency of weather, there should be a shed of at least thirty-six inches in width, with a continuous seat beneath it, extending along at least one side of the premises, and still further where circumstances admit of it. A few shade trees in the centre of the yard, would contribute still more to make it an agreeable and inviting place of resort to the pupils. There should be on the premises, also, a supply of water, both for drinking and washing; and a shed or closet, with a shelf and the appliances for cleansing. Liberal provision in all these respects, is not only essential to convenience and comfort, but is of pri-

Play Ground  
needful.

Should have  
Sheds & Seats.

Wash-House.

mary importance to the health and moral welfare of the pupils. To some extent, these advantages have already been realized in the Primary School buildings: their construction being such, that the entire basement story is made to furnish a commodious, sheltered play-ground, with the necessary space for closets, shelves, &c.

Ventilation.

Good  
draft and egress  
to be allowed.

In respect to the highly important subject of ventilation, it may be observed, that in all school-rooms provision should be made, by means of suitable openings in the walls, for admitting fresh air from without, and conveying off the excess of rarified air rendered impure by respiration. These latter should not be allowed to escape merely into recesses above the ceiling, or elsewhere, from whence they may again find their way into the room; but should have a free egress from the building. To ensure a proper degree of purity in the air of school-rooms, their capacity should be such as to allow of 100 cubic feet of space to each scholar. Besides these precautions, the rooms should be well lighted; and all the windows should be hung with weights and pulleys, so as to admit of the lowering and raising of the sashes.

---

#### GOVERNMENT.

Kindness,  
Vigilance,  
and  
Decision.

Mildness, vigilance, and firmness, are the characteristics of good government. In codes of discipline, "the law of kindness" is as invariable in its influence, as are the laws of nature; but it requires judgment and prudence in its application. Vigilance has been called "the strong arm of the law." It has one other strong arm—"the law of kindness,"—which, by a moral force persuades to duty, and insensibly compels to obey. Decision and firmness

give stability to government; while vigilance prevents the occurrence of evil. A spirit of kindness adds a genial influence to both: preventing either from being abused—by enabling the reasoning faculties to be successfully addressed, and the enlightened conscience to be convinced of wrong. Hence, punishment is more likely to be justly and judiciously administered; for firmness will not, then, run into tyranny—nor vigilance be exercised in a spirit of espionage. Thus, it will be found, that *mildness, vigilance, and decision*, with *firmness*, make up the “all in all,” Firmness of the discipline and government of a school; and, if properly blended, must secure success under all circumstances.

The Teacher must begin his government with the discipline of himself. “He that ruleth his own spirit, is better than he that taketh a city.” When he has obtained this victory, he is prepared to govern others. Children are so much the creatures of imitation, that it is all important that they have a good model. “As is the teacher, so will be the school.” It is therefore requisite, that the teacher rigidly discipline himself, by carefully cultivating Self-control  
and  
Cheerfulness. habits of neatness, cleanliness and order, gentleness of manner, a watchful self-control, and a cheerful spirit. If the light of the sun be needful to diffuse comfort and physical energy throughout a school,—no less important, from the power of its moral influence, is the light of a cheerful countenance, with pleasing tones of voice, and activity and earnestness of manner. These are grand essentials, therefore, in the moral atmosphere of a school. In speaking, let the use of the rising inflection prevail; then, the falling inflection of the voice of reproof will be more felt, and better understood.

*Encouragement* inspires confidence, and children, more Influence of  
Encouragement. than others, need it. Let it be given in all cases, when it can be honestly done. To a want of this sort of management, is to be ascribed the timidity and reserve, so



**A MANUAL**  
**OF**  
**THE SYSTEM OF DISCIPLINE & INSTRUCTION**  
**FOR**  
**THE SCHOOLS**  
**OF**  
**THE PUBLIC SCHOOL SOCIETY**  
**OF**  
**NEW - Y O R K ,**  
**INSTITUTED IN THE YEAR 1805.**

---

**NEW - Y O R K :**  
**EGBERT & KING, PRINTERS, 374 PEARL STREET.**

---

**1850.**

---



several grades are employed. It will also prevent, or at least neutralize the mistaken spirit of independence always felt by the young, and generally by those in subordinate rank,—and, thereby, promote a cheerful obedience to orders, and a submission to all the rules. For want of carrying out this principle, there is, too often, much embarrassment thrown around the operations and management of a school.

**Firmness  
highly  
Important.**

Firmness is the most important qualification of a teacher. Mildness and vigilance will do much; but good government cannot be maintained without firmness. It belongs to *firmness* to insure obedience. The teacher must carry his purpose. He must teach obedience to authority—mildly if he can; but it is all-important that he teach *obedience*. It touches the pupil's own deep interest: the teacher owes it to himself, and to society, that has invested him with his high and responsible office.

In the practical application, therefore, of the foregoing principles, you should be mild, vigilant, and firm,—cheerful, active, and earnest,—brief and quiet in giving orders. Such methods will best influence the young. Always be uniform in discipline. Teach by example a respect for the rights of others. In these things persevere, and you will see great effects. By all means avoid threatening. Think twice before you speak, and then remember well *what* you have said,—and subsequent reflection will never give occasions for the vain regrets of “had I known it,” or “had I *thought* of it.” Be not discouraged: what is difficult to-day, may be easy to-morrow: to think so, will do much towards making it so. Watch your school, for it watches you. The eye saves work to the hands. The teacher's eye will do more work, (and do it more effectually,) than his hands. It cannot be too often remembered that the eye has great influence in the government of a school. Yet, this never-failing vigilance should not seem

**Vigilance  
to be exercised  
openly.**

to be with the eye of suspicion,—but should be straight-forward, open, and understood. For, though the pupils ought to be conscious that, while in the teacher's *presence*, his *vigilance* will discern their orderly or disorderly conduct,—they should *feel*, when out of his presence, that they have the teacher's *confidence*. If *watched* when out of sight, it should be by arrangements, that may seem natural and incidental: for, as honesty and integrity are strengthened by confidence, and opportunities of trust,—so also, are falsehood and deceit, too often the fruits of suspicion and espionage. This principle may be called the balance of government: let the teacher see that it is always nicely adjusted.

Good effects of  
Confidence.

Thus, by the proper exercise of firmness and decision, with the constant practice of vigilance and mildness, the alternative of corporal punishment may be very much, if not altogether avoided. Yet, every precaution should be taken, lest resort be had to objectionable substitutes for the use of the rod; some of which may be equally painful to the corporeal system—sometimes more injurious, and even dangerous, and not unfrequently hurtful from their moral effects—and therefore, some of them certainly, improper to be used. The sustaining of wearisome burdens, unnatural and long-continued attitudes of restraint, public exposures, and badges of disgrace, are of this class of punishments. Some of these, with judicious modifications of the usual methods by which they are practised, and having due regard to their moral effects on the delinquent, may be used,—but only under careful limitations,—and with great circumspection and judgment: for, it requires a skilful, discreet, and conscientious teacher to use them safely and to advantage. It is ever to be borne in mind, that they are best suited to little children and to boys; and not adapted to the discipline of girls,—in whom a nice sense of shame, and a delicate sensibility to reputation, should be carefully cherished. With them,

Substitutes  
for Corporal  
Punishment.

By Public  
Exposure.

Girls never to  
be subject to  
such modes of  
discipline.

such punishments tend to blunt those feelings, which it is the teacher's duty most carefully to cultivate, as among the best safeguards to female character. Can punishments of this class, then, be safely ventured upon, without extreme vigilance on the part of the teacher? How hazardous in its moral effects, to leave a child publicly exposed, and liable to be neglected by the teacher, till the current of feeling begins to turn! Observe, that this ebbing again of the passions must be nicely watched. It is only by a careful attention to this critical point, that punishment by public exposure can become, as it sometimes does, a powerful means of discipline, especially in the training of little children. But they become worse than useless, if not thus rightly used; for, be it remembered, that, while the teacher may be here and there, the tide of feeling may change,—and the first surge of its backward course excite pride, anger, and malevolence. And, though this should be but in a small degree, every moment's continuance of the punishment or exposure beyond the salutary point, inflicts a moral injury that surpasses tenfold any possible good which the teacher can hope to derive from it, as a means of discipline. It also renders the punishment altogether ineffectual for another occasion—thereby, throwing the teacher into a new perplexity for other substitutes for corporal punishment. It is therefore plain, that, in resorting to such methods of discipline, untiring vigilance alone is to be depended upon, to give it any success. Now, there is only one answer to be made to an inquiry that will here arise—*What then is to be done?* It is the old—the oft-repeated adage—“an ounce of prevention is worth a pound of cure.” Set *vigilance*, then, as the van-guard; send it out far and wide,—backed and strengthened by the firm commands of *decision*,—while a spirit of *kindness* shall strengthen all the forces brought into the discipline of a school,—and how many embarrassments, difficulties, and perplexities will flee away before the faithful and skilful teacher!

May be useful  
with  
Little Children.

Yet,  
great caution  
necessary.

Its  
embarrassments

A better way.

In directing the various movements required of the scholars, care should be taken never *to touch them*. The teacher, in addressing either the whole school, or a single class, should take such a position as will command the eye of every scholar,—and thence direct by the voice, or by a signal. To call a child, and at the same time to draw *him towards you*,—to command him to go, and the next moment reach forward to push him ; or, to effect either of these purposes, not by words or signals, but by *taking hold of* the pupil,—is a very common error in discipline. Such a practice accustoms the scholar to wait for a repetition of orders before obeying. He should, on the contrary, understand that the teacher will give his commands but *once*,—and that *he* should *at once obey*.

Avoid the habit of taking hold of pupils to enforce commands.

Stand from them, and use signal.

An error, equally common, is to confine the delinquent by a cord,—or to turn the key upon him to keep him in a room, or exclude him from it. Now, as these are a resort to mere physical force, instead of the moral incentives,—without an appeal to either duty or honor,—the very idea of *authority*, or of *obedience*, is wholly precluded. Whereas, the *word* of the teacher should be stronger than bolts, and his *command* more binding than cords. These are errors seldom perceived, and felt to be such, except by those who have had much experience in the government of children.

Error of confining by a cord—or by locks.

It is, also, somewhat important, that scholars be taught that the little words *this* and *that*, *these* and *those* *here* and *there*, &c., always require that they *look* immediately at the speaker : they should fully understand that these words generally imply a signal—(pointing, &c.) Timely instructions on these seemingly trifling points, will remove a burden of little perplexities, constantly interfering with the management of the school.

Pupil to look on hearing this, that, there.

Cleanliness, method, and order, are among the first and most necessary elements of popular education. Let effectual provision be made for these,—and every good

Cleanliness and Method.

rule be enforced, both without and within the school-room: yet be careful that extreme attention to them do not hinder instruction; for either may be carried to excess. A due attention, however, to method, will give a right direction in practice to these important points. As cleanliness is valuable, both as a physical and moral means, in training youth, let it be constantly, not periodically attended to, and practised daily, for its own sake.

Physical  
Training.

Earnestness of  
Manner and  
Voice.

Avoid  
Selfishness.

Moral  
Development.

Education is unfinished, while the physical powers are left untrained. Teach children to sit, to stand, to move, to walk. The rules are few and simple; and these are the more easily enforced, from the fact, that "children are the nicest observers in the world." Be reminded *again*, that they are always looking at you, and that they imitate what they see. They should, therefore, see nothing that they may not safely imitate. Do every thing moderately and quietly, yet always with *earnestness*.—There is philosophy in school-government. Even reproof may be so given, as not to be understood by children. They wait for decided tones, and expressive and earnest looks, before they are influenced to feel or act. Therefore; be careful to throw earnestness and decision into your voice and manner, without the appearance of passion. Here, the falling inflection will be to the purpose; and, though expressive of displeasure, there will be no danger of making wrong impressions, if the teacher is in the habit of dealing with his pupils in a *spirit of kindness*. Let no circumstances betray you into a show of selfishness; for, it has been justly said, that "children often learn from teachers and parents, to love no one."

One of the best means of moral development, is, early to impart to children a knowledge of the benevolence of the Deity, as manifested in his works. Contrast this with the selfishness they may observe in their own hearts, and which is often seen in their actions—and you prepare a

tablet, on which you may the more easily impress all the precepts of virtue.

Volumes have been written, (and teachers would do well to read them,) upon the discipline and government of schools,—detailing rules of management, applicable to the ever varying circumstances of the little world committed to the teacher's trust. But they are all summed up in the foregoing, which will be found to contain the only basis of right government, and the best elements of good order ; and, if carried out, will insure success.

---

#### REGULATIONS BY THE CLOCK.

PUNCTUALITY is the life of business : but, nowhere is it of more importance, than in the business of school-keeping. The teacher's own punctuality is first—as, from its powerful influence it becomes the life of the school : therefore, nothing but absolute necessity, should cause any delay, especially at the opening of it. This, followed by regularity and precision in the change of exercises, and exact punctuality in closing school, will be among the best means of enabling a teacher, amidst many difficulties, to manage with success.

Punctuality  
of Vital  
Importance.

Somewhere near the clock should be placed the following motto—"A time for every thing, and every thing in its time ;" and, in all the exercises and operations of the school, the principle it represents, should be strictly enforced. Therefore, the duty of the teacher is, to see that the school-clock agrees with whatever regulates the neighborhood of the school-house. Should the clock not show the true time, (even though the difference be small,) the teacher should not fail to state the fact to the pupils, lest they may suppose there was an allowed departure from punctuality. Let not this be thought over-nice.

Clock  
necessary.

If out of order,  
Pupils  
to be informed.

Experience will prove its benefits, in a gain of time, and the inculcation of a spirit of diligence and punctuality. In the Public School buildings, where there are several departments, care should be taken that all the clocks be made to agree with that of the male department.

Change of  
exercises to be  
prompt.

The change of exercises according to the stated diary of the school, should, with the greatest possible precision, be regulated by the time of the clock; and no delay should be allowed beyond the set time. Every class, therefore, in the main room, or class-rooms, should obey the signal with absolute promptitude and precision.

Punctuality in  
Closing School.

In closing the school, the same exactness should be observed, as in opening; and any deviation therefrom should be explained, out of regard to the rights of the pupils. They will thus be taught to respect the rights of others, (in itself an important principle,) and will, moreover, be conciliated by the respect shown to theirs. An exception to this may very properly be allowed, as a penalty for idleness in school, or tardiness in coming. The moments of school-time are as the dust of gold: though but modicums they are valuable. Let the economy of the school be such, if possible, as to save them all. Attention to the time of the clock, will prove a great means of effecting this great end.

These important general considerations being disposed of, the remaining part of this manual may be divided as follows:—First—Division of the school into classes; Second,—classification of the studies to be pursued, with suggestions for teaching them; and Third,—mechanical organization for carrying out the general discipline and operations of the school.

## PART SECOND.

### DIVISION OF THE SCHOOL INTO CLASSES.

A PROPER classification of the pupils, and a judicious grading of the course of studies pursued, facilitate in an eminent degree the business of instruction. The classification on the system pursued in the Public Schools, is into nine classes, graded according to proficiency in reading; from the earliest rudiments, to the highest practicable attainments in orthography, definitions, and the art of reading. The other studies range through all the classes, from the simplest elementary oral teaching, to expository and analytical instruction with the use of class-books,—and more extended oral instruction, by visible illustrations, and otherwise. The first six classes are taught in the Primary Schools and Primary Departments.\* In the Primary Schools, a Teacher is appointed to every fifty scholars, in order to provide for careful individual instruction by the teachers, of all the classes successively, in divisions; while arrangement is made in the general exercises, for “mutual instruction,” sometimes to be given by the pupils themselves, after a modified form of the system of “monitorial instruction.” This is done under the supervision and inspection of one

Classed  
according to  
proficiency in  
reading.

All the Classes  
taught  
by divisions, in  
class-rooms.

General  
exercise by  
mutual  
instruction.

---

\*Primary Departments are schools of the same grade as the Primary Schools, but held in the basement stories of the Public School buildings, appropriated to the upper or higher schools. They differ in their plans from the Primary Schools, only in receiving pupils under four years of age, and for such, adopting some of the features of “the Infant School system.”



or more of the assistants, who, at such times, aid in giving instruction, as well as in attending to the discipline of the classes. The other teachers, at the same time, have large divisions of classes under individual instruction, either in class-rooms, or in some unoccupied part of the school-room. Thus the teacher and assistants alternately teach all the classes, both individually and collectively. A Diary, regulating these operations, and the time to be allotted to each, will be found in the Appendix. The following is one of the general regulations as prescribed by the By-laws of the Society:—Extract—"A portion of the Scriptures shall be read by the teachers, at the opening of the schools in the morning; during which time the doors shall remain closed; except in inclement weather—at the discretion of the teacher." The following "*Rules*," and "*The Persuasive Charge*," are to be *occasionally* recited immediately after the school has been opened by the reading of the Scriptures;—at which time the pupils are to be personally inspected by the teachers, as to the cleanliness of their persons, before repairing to their classes for instruction:—

Opening School

Rules, &c.  
occasionally  
repeated.

#### RULES.

- 1st. I must be silent when the bell rings.
- 2nd. I must always mind my Teachers.
- 3rd. I must come every day, and be here when school goes in.
- 4th. I must not be idle.
- 5th. I must not lie.
- 6th. I must not steal.
- 7th. I must not swear.
- 8th. I must not be angry.
- 9th. I must not strike nor hurt any one in anger.
- 10th. I must be pleasant and kind to all.
- 11th. I must forgive all who offend or injure me.
- 12th. I must be clean in my clothes, my face, and my hands.

13th. I must be decent in all my ways.

14th. I must not destroy my books or lessons.

15th. I must not tear nor break any of the furniture of the school.

16th. I must remember these rules, and try to keep every one of them.

#### PERSUASIVE CHARGE.

*T.* My dear children, the intention of this school is to teach you to be good and useful while in this world,—that you may be happy here and in the world to come. What is the intention of this school? *T.* We therefore first teach you to “remember your Creator in the days of your youth.” What do we first teach you? *T.* It is our duty to teach you this, because we find it written in the Holy Bible. Why is it our duty to teach you this? *T.* The Bible directs us to “train you up in the way you should go.” What good book directs us to train you up in the way you should go?

*T.* Therefore my children—

You must obey your parents.

\**S.* I must obey my parents.

*T.* You must obey your teachers.

*S.* I must obey my teachers,

*T.* You must never tell a lie.

*S.* I must never tell a lie.

*T.* You must never steal the smallest thing.

*S.* I must never steal the smallest thing.

*T.* You must never swear.

*S.* I must never swear.

*T.* God will not hold him guiltless that taketh his name in vain.]

---

\* The pupils, at each repetition, place the right hand, opened, upon the breast, which gesture seems to make the sentiment more impressive.

**S.** God will not hold him guiltless that taketh his name in vain.

**T.** God always sees you. (Slowly, and in a soft tone.)

**S.** God always sees me.

**T.** God hears all you say.

**S.** God hears all I say.

**T.** God knows all you do.

**S.** God knows all I do.

**T.** You should fear to offend him, for he is most holy.

**S.** I should fear to offend him, for he is most holy.

**T.** You should depart from evil and learn to do well.

**S.** I should depart from evil, and learn to do well.

**T.** May all you, dear children, while attending this school, learn to be good and useful in this world.

**S.** May we all while attending this school, learn to be good and useful in this world.

**T.** And with God's blessing, may you be happy in this world and that which is to come.

**S.** And with God's blessing, may we be happy in this world and that which is to come.

### PART THIRD.

#### CLASSIFICATION OF INSTRUCTION,—AND SUGGESTIONS FOR TEACHING.

In the Primary Schools, collective oral instruction, illustrated by the numeral frame, geometrical solids, a small cabinet of minerals, outline maps, models, and other scientific objects, with the use of the black board ;—form short lessons for all the school simultaneously, as is arranged by the Diary. The teachers, however, at discretion, may vary the lessons given to divisions in the class rooms, by extended and more particular instruction on the knowledge of common things: care being taken, that these exercises do not encroach upon the due proportion of attention to be given to special instruction in orthography, definitions, reading, and the elements of arithmetic.

Oral  
Instruction.

Chief attention  
to be given to  
Spelling,  
Reading, &c.

The first three classes and the lowest division of the fourth, are taught from the elementary lesson cards, which comprise twenty-four lessons of spelling and easy reading. The first four of the course have the alphabet on the margin,—the consonants being on the right and left margin, and the vowels at top. The syllables and words comprising these first lessons, are to be spelt by pointing out the letters on the margins, and naming them, and then pronouncing or reading the syllable or word in the reading lesson, when pointed out. The alphabet and reading are thus taught together; while a few lessons in naming the letters in course, as pointed out on the margin, serves to give a knowledge of them in their series, for

Method of  
using  
Lesson Card.

Alphabet and  
Reading  
taught  
together.

No Spelling  
during the  
Reading  
Lesson.

Lessons to be  
frequently  
changed.

all the purposes for which such knowledge is required. These Primary Lessons are also so arranged, that all the difficult words of each reading lesson precede it as a pronouncing and spelling lesson. Therefore, at the time of reading, there should be no spelling, but the teacher should pronounce for the pupil, or require another to tell such words as fail to be pronounced. The several classes must not be kept constantly on the same lessons till perfect in them; but the lessons should be *frequently* changed, to prevent the pupil from committing them to memory, by the exercise of their comparative faculties, without having learned the forms of the letters and words.

When at the general exercise of reading in drafts, a division of the fifth class read in books to a monitor drawn from the fifth or sixth class: the assistants then being engaged with classes in the class-rooms.

#### WRITING AND DICTATION.

late only used  
and  
how prepared.

Writing, in the Primary Schools, is performed only on slates. For this purpose, the pupils, at such times, have distributed to them, a pencil and sponge from small baskets prepared for such use. In an aperture in front of the desk, opposite each seat, is a slate, which is ruled on one side with horizontal lines for writing, having also an oblique line, at an angle of 52, at the left hand, to guide to the proper slope for the letters. The other side of the slate is left unruled, for ciphering and drawing exercises.

Writing Copies  
a separate  
Exercise.

Painted  
Copy Board  
and  
Alphabet  
necessary.

For the purposes of *Dictation*, each school is supplied with a set of painted dictation-boards, one word on each side. They are placed on a pivot stand—one before each class. The set comprises — —\* words.

---

\*For the list of words, see Appendix.

The boards may be occasionally used for the exercise of writing copies ; but it is preferable that copies be set on the slate by the teacher, whenever practicable.

Writing on slates from dictation, if properly attended to, gives facility in writing, and readiness in reading the writing character : it also begets a habit of precision in copying, and writing down from memory ; and, at the same time, advances the pupil successfully in orthography and definitions. In aid of these exercises, each school should have on the walls a painted alphabet board with the writing characters. The teacher, having charge of the Dictation exercise, standing at a convenient distance, at or near the platform, by significant motions directs the slates to be drawn, and the pencils and sponges to be distributed, after the following manner :—

Each School  
to have the  
Alphabet  
Writing  
Character  
on the  
side-wall.

*Directions for practising Dictation, in Primary Schools.*

Every child being in his place, the teacher proceeds as follows :—(the *orders* being given by *signals*.)

*Order* 1st. Attention. Every child sits erect,—with hands fixed,\*—feet square on the floor,—heels near together, toes turned out.

2d. Take Slates.—The slates are taken out, and laid square on the desk ; the left end opposite the centre of the breast.

3d. Clean Slates.

4th. Hands fixed.

5th. The fingers of the left hand on the desk, resting flat.

[During these exercises, the monitors who are assigned to the several desks, get ready their pencil baskets and

---

\*The hands may be fixed by placing them across the breast—on the lap—  
or otherwise at the discretion of the teacher.

sponges; and, as the slates are laid on the desks, they pass rapidly along in front, dropping a pencil on or beside each slate. Other monitors, in like manner, distribute the sponges.]

6th. Take Pencils.

Process with  
Lowest Classes  
by  
Copy Boards.

7th. The Dictator, whether teacher or assistant, then names the word on the board: those who are to write the word, repeat it in concert. She enunciates each letter distinctly. All the children of the class do the same, and pronounce it. Finally, while she points to the several letters in succession, the children name them, and pronounce the word. The teacher then says—

8th. Write;—and passes to the next class;—and so on through the whole. She now returns to the place of beginning: and, turning the board, again goes through as before. The same routine is repeated, with a second board, and again, with a third board;—when each scholar will have written six words.

9th. Clean Slates. They then go through the same process. This, with due rapidity, may be done three times in the half hour; when, each child will have once written, and twice spelled and pronounced, 18 words.

[While the writing is going on, the monitors, passing along behind the scholars, correct what is wrong.\*]

10th. Return Slates, with the last exercises upon them.

Pupil  
to continue  
writing the  
same word.

The words must be written in perpendicular column, commencing at the top of the slate, on the left hand corner; and those who can, must continue writing each word on the same line, till the next is given out.

When the exercise is ended, the monitors again pass rapidly in front,—carrying, each his basket just above

---

\* This applies to the position of the slates—the body—the hands—the words on the slate, and, as far as possible, to the writing and spelling.

the desk ; and each pupil, having his right hand extended with his pencil between his thumb and forefinger, drops it into the basket as it is passed along. Other monitors, at the same time, collect the sponges.

At each interval for cleansing slates, some energetic exercise of the hands and arms, in unison with signal motions given by the dictator, should be practised, as a means of affording relaxation and muscular action to the whole body.

Physical  
Exercise.

To command attention,—a light clap of the hands, a ring of the bell, or any other slight signal, so as to be heard, or the single word—*look*—is all that is required in giving orders : significant motions must do the rest.

The dictation boards are designed chiefly for the 3d, and lower classes ; and the process of pointing out the letters, as directed in order 7th, should be practised only till they can write the words with facility : they should then be required to write them from dictation only. When familiar with this process, other words should be dictated to them. To the higher classes, more difficult words, and words with definitions, must be dictated.

Dictation  
Boards  
chiefly for the  
Lower Classes.

Process with  
Highest Class,  
without  
Copy Boards.

The lower classes all respond, and spell the word once.

Above the 4th, only one child responds.

Every teacher and assistant is called upon to make this exercise, (Dictation,) a matter of careful study, on account of its high utility, as a means of mental and physical culture. It awakens the attention, excites intellectual activity, and develops the dormant energies of children, more effectually, and more agreeably, than can be done by any other school exercise whatever.

You have in it,—silence, the first requisite of good order, the erect, easy, and appropriate posture—the eye all alive to catch the first signal,—the muscles all set and braced, for the quick and exact movement.

As the eye rests on the word on the board, the mind



Valuable  
Characteristics  
of this  
Exercise.

begins its operations ;—when it is pronounced, the ear lends its aid ;—when each letter is enunciated, the analyzing process is required, and the memory is laid under contribution :—when the response of each falls upon his own ear, another impulse is given ; and, finally, there is the manual process of writing the word on the slate. In these successive steps, we find the eye, the ear, the tongue and the hand, aiding, and impelling the mind through a series of exercises, of the highest importance in expanding and training the intellect.

Dictation  
not intended  
for teaching to  
Write.

During Dictation, when properly and energetically performed, (and it must be done with dispatch,) the child can get no chance to play, sleep, be idle, or do mischief. The process is, itself, the best and most perfect drill for order. The operations of the Dictator must *not* be suspended to give instruction, or to point out errors ;—for, though Dictation is a valuable exercise in learning to write, correct writing is to take up no part of the attention, during its performance. One half hour each day is set apart for instruction in writing,—which is all sufficient, without interfering with Dictation.

It will thus be seen, that this valuable exercise of Dictation for writing on the slate, is intended for the purposes of teaching Orthography, and a knowledge of the script character, as fast as the pupils advance in ability to read the Roman or printed text,—also, to give the pupils an aptitude to transfer correctly to the slate, what is deposited in the mind ;—all which will eventually make them good spellers, correct writers, and accurate copyists.

Each and every teacher is instructed and enjoined, to become thoroughly and practically acquainted with the principles and details of this system of Dictation ; to cause their assistants to be thoroughly instructed therein ; and to practise it during several specific periods every day, with due energy and care.

During the exercise of dictation, and that of writing copies, strict attention should be given to the directions for frequent exercise of the hands and arms ; particularly by throwing them backwards and upwards, to expand the chest. In writing, the position should be nearly erect, so as to avoid constriction of the chest, or curvature of the back, by lowering either shoulder. Care should be taken to prevent these evils, by a proper construction of the desk and seats,—so that there may be no necessity either for stooping, or elevating the shoulders in resting the hand upon the desk. These points carefully attended to, the important exercise of Dictation, as pointed out, may be practised frequently, without the risk of any physical injury. The hands should not be often folded across the breast ; it is an uncomfortable position when long continued ; and should only be allowed at short intervals as a change. Let them rest on the desk or lap ; and when standing, and also when seated, they may be allowed to fall at the sides, and sometimes to be folded behind, resting on the hips,\*

Proper  
Positions.

Precautions.

Both during the exercise of dictation, and that of writing copies, the first class may be employed, by the same process of dictation, in pronouncing and forming the letters, either of the Roman or written character.

The Alphabet  
by Dictation.

As the tracing of letters, by the little beginner, requires analysis and comparison, these elementary lessons in Dictation, considered as a means of mental development, should receive careful attention.

Importance of  
Dictation  
in teaching the  
Alphabet.

---

\* When sitting on seats with backs, the hands can not well be folded behind.

## ARITHMETIC.

First Steps in  
Arithmetic.

Means of  
Illustration.

Figures and  
Tables.

Arithmetical  
Key—  
how used.

All the Class  
successively  
to add  
individually.

Counting  
by the fingers  
to be avoided.

Among the earliest lessons of the Primary School, is that of counting the balls of the numeral frame. By this they are taught that *number* is the *increase* of objects, and that figures are *signs* to represent *number*. From this point, the rudiments of arithmetic are progressively illustrated by means of the numeral frame, the black board, and the geometrical solids. These illustrations are to be accompanied with lessons in mental arithmetic, and exercises in making figures on the slate from\* the card of model figures supplied for the purpose. The tables, also, are taught them by dictation in connection with the use of the numeral frame, geometrical solids, marks on the black board, and other visible illustrations.

The sixth class are taught the four elementary rules, by the \* "Arithmetical Key." The teacher dictates in course the lesson from the key; requiring each to write down the figures as dictated. This being done, they proceed to read the figures, or amount of each line. Then, beginning at the right of the class, they go through the process by adding aloud, each in turn one column—the others carefully watching, to detect and correct every mistake. Even in the first steps of addition, they should be required to make the effort to add without counting by their fingers, or repeating each sum added, as thus, two and three are five, and two are seven, and three are ten, &c.; but they should rather pause, and count mentally, and then pronounce the sum; thus,—two—five—seven—ten, &c. When the line is added up, teach them to set down the excess over the tens, under that line, and carry one for every ten, to the next column, as tens in whatever column added, is just equal to one in

---

\* See Appendix.

the next. In carrying the ten, they should name the figure to which they add it, and then proceed without repeating, as before directed. Should an error occur with the one adding aloud, let the pupils signify their knowledge of it by raising the hand. This is desirable, as an evidence of their attention. The whole class are thus exercised individually,—each adding a column, and all employed, (or should be,) in the same process. However, to prevent a neglect of this, the practice should be varied by a black board exercise; by which the whole class may directly participate in every part of the process, and may thereby be precluded from copying, or following those audibly adding, without performing the process themselves. They should also be further tested, by each silently performing the whole operation on the slate.

Means of  
fixing  
Attention.

Other methods  
to secure  
Attention  
from all.

The same precision is to be observed in all their progress through the four elementary rules, with the use of the Aritmetical Key; which will be found to embrace all the combinations of figures, that are necessary to prepare the pupil for commencing the compound rules.

## READING.

Early attention to be given to training the Vocal Organs. A knowledge of the subject of Physical Enunciation, which relates to the structure and proper use of the organs of speech is so essentially connected with the art of reading, as to demand the early and careful attention of the Primary School teacher. The pupil should be taught, that letters, as to their forms, are the signs of sounds; and that these sounds, being the elements of language, and designed to express our thoughts, should be correctly and distinctly uttered,—and especially so in the termination of words. What form is to letters, sound is to words; and, as the design of speech, like that of writing, is to be understood; therefore, like written language, speech should be plain and distinct. As the neglect of dotting an *i*, or crossing a *t*, embarrasses the reading of manuscript; so also, the indistinct articulation of an *s*, *ng*, *d*, or *th*, too often renders speakers and readers quite unintelligible. This evil will not cease to exist till, in Primary Schools, the very youngest of the pupils shall be carefully and precisely taught. The alphabet should be taught physiologically; illustrating, in exercises, the organic formation of the sounds of the language.

Letters or Syllables to be sounded with precision.

Articulation and Enunciation first steps in Reading.

Your Children to be taught by what organ each letter is formed.

The advantages of attention thereto. Articulation, or the correct formation of the consonant and vowel sounds, together with a proper pronunciation of syllables and words, forms the basis of elocution, and is essential to successful oratory.

Reasons for early training of the vocal organs. Instruction on this subject should commence in the Primary School, at an age when the organs of speech are flexible, the hearing acute, and when proper habits of speaking are as easily acquired as faulty ones. The pupil may be as readily taught to say traveller, tobacco, singing, whirl, &c., as to say travler, tobaccur, singin, and wurl.

The scholar should be made to perceive the difference

between the names of the letters, and their elementary sounds; and may be practised in enunciating these sounds separately.

The articulation of the consonants is attended with far more difficulty than that of the vowels; and demands a proportionate amount of attention and care. The pupils should therefore be practised upon words selected for their fitness to bring into full play the articulating apparatus, especially in cases where unusual defects in facility of utterance exist.

Drilling on the  
Consonant  
Sounds  
to correct  
Impediments,

They should by all means be made familiar with the part performed by each organ of speech in forming the elementary sounds composing words, and should be thoroughly convinced that every organ must perform its part, and the teeth, tongue, lips, &c. act with precision so as to give the desired distinctness to the sounds we utter. They should also be made to understand that loudness may not give *distinctness*; and that, provided there be only the requisite precision in the action of the articulating organs, a very feeble volume of air from the lungs, will do more to render a speaker intelligible than the most powerful blast, with an imperfect and slovenly exercise of those organs. *Rapidity* of utterance, however, must by all means, be avoided.

Distinct  
Articulation  
preferable to  
loudness.

Some of these points may be simply illustrated by directing the pupil's attention to the first attempts of an infant to speak, or to the imperfectly uttered words of a person intoxicated, or one speaking under the influence of anger. They may also be convinced of the necessity of slowness and deliberation, by detecting their own faults in the pronunciation of suitable examples given them for that purpose.

Illustrations of  
the necessity  
of slowness.

Words of the  
Lesson to be  
first spelt.

In Spelling,  
every word to  
be reiterated.

The Teacher  
to select  
such portions  
as will  
most actively  
exercise  
the organs.

The  
advantages of  
Colloquy as  
reading lessons.

Promotes  
a natural and  
easy style of  
Reading.

It is important, to pronounce and spell all the difficult words of the lesson before reading it. Before spelling, the words should be distinctly pronounced; and in spelling, there should be a repronunciation of the syllables till the word is completed. These will be successful means in teaching to read, for they are in themselves useful exercises in articulation and enunciation.

As reading books are not always judiciously arranged for progressive instruction, it may not be best to read them always in course; but to select such pieces as comprise those characteristics best adapted to the foregoing directions.

Varied colloquy, as reading lessons, not only tends to prevent that stiff and embarrassed manner commonly observed in young readers, but is peculiarly fitted to give a natural modulation to the voice, and an expressive delivery. Being wholly conversational in its character, children are led, almost unavoidably, to enter into the spirit of the piece, and to use the inflections they would do in talking; and hence, to read in a natural manner. It is for this reason, that the lively, natural, and intelligible popular tales of Miss Edgeworth, are especially useful as early reading lessons. Children trained by their use, read naturally—and well; while those who have not been so trained; are often found to read these simple lessons very inaccurately; and yet, might manage with some degree of success, the reading of the finished essays of the British Classics. These they have been taught to read with a sort of mechanical correctness, by the most laborious efforts of the teacher. But, were it not for the occasional smoothness and interest they may have haply found in the agreeable and animated paragraphs of Addison and Goldsmith, and the spirit they may have there imbibed, they would altogether fail of being even tolerable readers of such simple colloquy as are to be found in "The Popular Lessons." The selections in most

of the Reading Books, though superior and excellent of their kind, are only suitable exercises for the pupil after he has been rightly trained by a course of more progressive lessons.

Some children *talk* so incorrectly, that it is difficult to teach them to *read*. The elementary lessons on articulation recommended, with this exercise on colloquy, teach them to talk well,—so that they may soon become good readers.

By all means avoid what may be called *mannerism* ; but judiciously vary your style to suit the character of the exercise. Should such a style of reading have been contracted, only let a pathetic paragraph be read, followed by the reading of some comic description, or an advertisement in a newspaper, and both the pupil's and the teacher's taste will be shocked at the falseness of such a general style of reading. Practice upon colloquial and familiar pieces, will do much towards correcting this evil, and cultivating a natural and easy style of reading.

Style of  
Reading to be  
suited to  
the subject.

The position and posture of the pupil while reading is important. Standing erect is the only proper position in learning to read, as the chest must be expanded for the free use of the lungs. By a sitting posture, stooping is induced ; which, not only constricts the chest, but also the muscles of the back and abdomen, near the hips ; the energetic action of these muscles is needed in aid of respiration. The shoulders should be thrown back, and the neck straightened to nearly a vertical position, so as to leave the throat or upper part of the windpipe free to contract and expand for the emission of the voice to the mouth, there to be modified into speech, by the proper exercise of the visible vocal organs. The propriety of the foregoing remarks will be rendered more obvious by the following brief explanation of

Objections to  
sitting when  
reading.



## THE ORIGIN OF VOCAL SOUNDS.

Organs of  
Respiration.

Within the chest or *thorax*, which is the large cavity immediately surrounded by the ribs and breast bone, are situated the two lungs or air bags; from which an elastic tube, called the windpipe or *trachea*, passes upward to the throat. The upper end of this tube, before opening into the throat, is considerably enlarged,—which enlarged portion is called the *larynx*.

Passage  
of the breath  
from the lungs.

Modulation  
of the voice by  
the top of the  
windpipe.

In the process of ordinary respiration, there is an alternate expansion and contraction of the cavity of the chest, by which the air, as in the case of a bellows, is successively drawn in, and again forced out through the windpipe, throat, and mouth; but without causing any vocal sound. If audible sound is to be produced, we have only to expel the air from the lungs with a little more force, and to make, at the same time, a slight movement in the larynx:—this latter organ being the exclusive seat of sound, and of all its variations, as to pitch and tone.

Sound  
Articulated.

But sound in this simple state, is uttered with equal facility by various animals, as the cow, dog, birds, &c. So that, for the purposes of a spoken language, a further process is required. The sound emanating from the larynx, in its passage through the mouth, is partially arrested by the lips, tongue, teeth, and palate, and is, by these articulating organs, broken up into those distinctive portions of sounds, which are represented by the letters of the alphabet, and by syllables and words.

From this brief statement, it will appear very obvious that, to render speech distinct and intelligible, the main dependence must be placed, not so much on mere power of voice, as on the perfect action of the articulating apparatus belonging to the mouth. Hence, teachers must perceive the advantage of exercising their pupils according to the foregoing directions.

Should the teachers, however, not be competent to train their pupils in the elementary principles as recommended, nor be able to carry forward the rhetorical instruction, based on them, they must, by all means, seek instruction themselves from a skilful teacher. For, however plain and well elaborated may be the treatises they consult on the subject, it will only be by practical lessons from the living teacher, that they can prepare themselves for performing well, one of the most important branches of primary education; and one which has a great amount of moral influence in its effects. For, if reading is the key to knowledge, it should be a golden key—not iron, to rust. Now, if reading becomes a pleasurable employment from the facility of reading well, then it will cultivate a taste for books, which may be exercised, not only to individual advantage and improvement, but occasionally in the social circle, to the benefit of others. The more skilfully one is able to read, so much the more will he profit and be improved by the employment; and, if one reads well, the more willing and able he will be to benefit others by the gift. It is, therefore, desirable, that the important art of reading be well taught.

Reading  
an important  
part of  
Education.

Its moral  
influence.

---

#### GEOGRAPHY.

From the facility with which it may be taught, and the variety and agreeableness of the subjects it presents, Geography is a pleasing study in the Primary School. The varied associations by which it may be impressed on the mind, and the facility of tracing its features on conspicuous and well colored outline maps, enable the pupil to make rapid and extensive advancement in it, without abridging the due proportion of time required to be given to other studies, and without the expense of books, and the burthen to the child of committing to memory the words from a book.

An easy study  
and agreeable

Definitions  
taught orally.

The geographical terms or definitions may be taught orally, care being taken to express them in a plain and compendious manner, and to refer to the map or diagram for illustrations ; for instance,—

How  
illustrated.

A peninsula is land almost surrounded by water, or *almost* an island : then refer to the map or diagram for an example.

A river is a large stream of water running downward to the sea, or into another river, bay, or gulf ;—it runs down this slope to this ocean, or empties into that river,—here is its source,—there is its mouth,—here it rises,—there it *discharges* its waters.

Forms of  
Land & Water  
compared.

Let them observe the analogy in form between an island and a lake—an isthmus and a strait—a peninsula and a bay or inland sea, &c.

Elementary  
Instruction  
to be well  
illustrated.

It is all-important in elementary instruction, that it be so plain as to be entirely understood, by being, as far as is possible, well illustrated.

How to begin  
the study.

A simple map of the school-room on a black board, to be copied on the slate by the pupils, will perhaps best introduce this study. Then add to it the adjacent streets, showing its boundaries, North, South, East and West.

Points of the  
Compass  
illustrated.

Illustrate the points of the compass, by requiring them to turn their faces towards the point in the heavens where the sun is at twelve o'clock ; and, stretching forward the hand, to say, *South* ; then, turning their face to the opposite point, to say *North* ; and stretching out the right and left hands, to say *East—West*. Then, if they draw their map of the school-room looking toward the north side of the room, they will clearly comprehend the maps from which they are to be taught.

Form of the  
Earth  
and its motions  
taught by a  
small globe.

The geometrical solids, a sphere and spheroid, will present to them the idea of the Earth's form. Then a small globe suspended from the hand by a twisted string, will illustrate *diurnal* motion ; and at the same time swinging it around, its *annual* motion may be represented.

After this, direct the pupil's attention to the map which covers the globe, observing that the North end has most land, the South end most water; that, in the Eastern hemisphere, the land is broad, stretching East and West; and the Western continent, narrow, stretching North and South. Such may form the first progressive lessons.

Attention  
to be given to  
the general  
divisions of the  
Map.

It will be easy for the pupil, mentally, to transfer the map of the globe to a plane surface; and to perceive that it is like drawing a portrait or an apple on canvass; and that the map on the plane surface is a representation of that on the globe; and that all maps are outline pictures or representations of parts of the earth's surface, to shew how places are situated, one from the other; so that we may learn particulars about their divisions, mountains, lakes, rivers, towns, and cities: and that such is Geography, or a description of the earth's surface.

The use of  
Maps on a  
plain surface.

The first lesson on the maps, should be from the Outline Hemispheres, with an occasional reference to the small globe.

First Map,  
that of the  
Hemispheres.

To familiarize the pupils with the points of the compass, first point out the *Equator* as the middle division of the Earth's surface, considered as a line running round the globe East and West. Then point North and South, dictating; the pupils repeating till they are able to tell rapidly, at sight, the position of the pointer as it is directed by the teacher. Then point out the meridian separating the Eastern and Western continents; exercising them in the same manner till entirely familiar with N., S., E., and W.; sometimes adding the words *Longitude* and *Latitude*. Continuing the same exercises, as naming the different divisions of countries, for example: The Gulf of Mexico is south of N. America; the West Indies, south of the United States; Europe, east of the United States; Pacific, west, &c.

Points of the  
Compass  
taught thereon.

Continue the use of the map till familiar with the out-

Map of  
United States.

lines of Europe and N. America, then the teacher may proceed to the Map of the United States; first tracing its boundaries, then naming the States in succession till familiar with their names: then take them in divisions, —Eastern, Northern or Middle, Southern, and Western. After which, point out the principal rivers and ranges of mountains; continuing to name by *frequent repetition*, the relative locality of the States, their capitals, rivers, &c., as rapidly pointed out on the map. Notice, also, remarkable features of the country; its slope, and the consequent courses of the rivers.

Principle of  
Association.

In the course of every successive lesson from this point, the teacher may call in the aid of association, by naming the products and staple commodities of the several States; also, historical facts, remarkable curiosities, high mountains manufactures, &c., occasionally naming each separately, as—That is the *Lumber State*,—this the *Wheat State*,—this the *Cotton State*,—*Sugar, Tobacco, Rice, &c.* Here is Gold,—there Lead, Iron, Coal, &c. Then review interrogatively (as pointing), saying—What State?—its capital, rivers, mountains? What products here? What in this State? In this? &c. The rivers also may be classified by their courses. All running South, North, &c. Those emptying into the Gulf of Mexico from West, East. Passing to the Atlantic Slope, name all those emptying into the Atlantic, or tributary to its large rivers or bays.

Map of U. S.  
to be  
thoroughly  
taught before  
those of other  
countries.

The Map of the United States should thus be thoroughly traversed, at least as to its topography, before proceeding to maps of other divisions. Taking care to use again the Map of the Hemispheres, to shew the situation of the United States in respect to other countries; and the position of the four quarters of the world, in connexion with them.

Direct attention, also, at this point of progress, to the tropical circles, zones, &c., meridians, and parallels of

latitude. Familiarising the pupil with latitude and longitude, in the same manner as directed in regard to the points of the compass, saying, (as pointing)—What latitude? What longitude? North or South? What zone? &c. Communicate, also, by the limits of the respective zones and parallels of latitude, the idea of climate,—as hot, cold, temperate; also the changes of temperature effected within their limits, by means of adjacent oceans, high mountains, broad lakes and forests, desert sands, line of perpetual snows, &c.; also the products and animals peculiar to each general division.

The Circles of the Globe taught by the same method as the Points of the Compass.

Zones, Climate and Temperature.

Topography, or the mere locality of places in respect to each other, is so soon learned, through the eye, by the use of the usual outline maps, with their bold features and vivid coloring, that no great effort of the teacher will be required, if care has been taken with the *preliminary* lessons on the *points of the compass*, latitude and longitude, and the lines and circles of the globe. Much pains, however, should be taken from the commencement of this study in the Primary Schools, to give a clear comprehension of the physical features of the countries, not so well presented by the maps. The grade or slope of a country should be observed; its mountains and internal water sources, and the flow of its rivers, which denote its physical features. For example, notice the Western coast of S. America, where the Andes, with their table lands and precipitous descent on the coast, forms no basins drained by rivers, other than such as are short and rapid, and unfit for navigation.

Physical Geography in early lessons.

Pass to the East of this vast ridge, and point out the lengthened slope that feeds the expanded Amazon; and then the Brazilian mountains, forming a basin Westward, to send down the Uruguay, Paraguay, and La Platte, to the South Atlantic.

Striking Illustrations.

Contrast the Chilian coast, averaging 120 miles in width, with the broad Western slope of the Rocky Moun-

Western Coast of N & S. America contrasted.

Illustrations  
by Eastern  
Coast of  
N. America.

tains, traversed by the Columbia for a thousand miles. Trace out the great Western Valley, formed by the Rocky Mountains and the Alleghanies: showing how the waters of Missouri and Mississippi are made to course southward to the Gulf; and the slope East of the Alleghanies, coursing all its rivers to the Atlantic Ocean. Observe, too, that the waters of Lake Erie flow Northeast to Niagara and Ontario, and that that lake must be higher than Ontario, and Ontario than St. Lawrence, and so on to the Gulf; and the Hudson river is higher at Albany than at New-York.

Elementary  
Illustrations of  
the subject.

A drop of water on a slate kept stationary, as on a plane, then set in motion by a slope, would possess the pupil of the idea, never to be forgotten, with this reference to the maps, for mountains, valleys and coast, with the consequent flow of the rivers *down hill*.

Example of  
Rivers  
over plains.

It may be observed that they sometimes course over plains, as those of Peru on the Western coast of South America the rapid descent to which, forms over its short plains or steppes, streams swift and shallow, but not navigable; and the waters of the Drave, Save, and Danube, carried across the vast plains of Hungary, though with scarcely a perceptible current.

Necessity of  
such  
Illustrations  
in Elementary  
Instruction.

A clear understanding of this part of Physical Geography is important, as showing the relation everywhere existing between mountains and rivers, and between the elevation and length of the slopes of a country, and the length and rapidity of the rivers which drain it.

Voyage over  
the Map.

A voyage might be traced out by the pointer,—the pupil naming the localities passed over. Leaving New York, cross the Atlantic, East by North, to the English Channel, Straits of Dover, North Sea, Skager Rack, Cattegat, Island of Zealand, enter the Baltic Sea, Gulf of Finland, to St. Petersburg. Returning the same course, take the West side of England, through North Sea, North Channel, Irish Sea, St. George's Channel.

Occasionally name the islands, bays, and sea-ports contiguous, and their commerce and manufactures.

Such practical lessons would prepare the way for future exercises of a maturer character in the Upper Schools; such as the composing of a narrative of a voyage,—say from New York to Lyons, and thence to Constantinople; giving the incidents and commerce connected with it.

Should such lessons first be pursued in an elementary manner in the Primary School, by the methods here recommended, it would not only make their pupils more intellectual scholars, but leave them more leisure in the advanced schools, for acquiring a more complete knowledge of Physical Geography, and for Problems on the Globes; and also for connecting with Geography (which might well be done) some principal facts of General History, which would be a great advantage to Common Schools.

Preparatory to  
Geographical  
Composition  
in the  
Upper Schools

Advantages of  
this kind of  
Elementary  
Instruction  
when advanced  
to the  
Upper Schools

#### READING IN THE UPPER SCHOOLS.

All the reading classes receive careful instruction alternately, by divisions, in the class-rooms, either from the Principal or his assistants; but the lower classes are likewise occasionally practised, under selected monitors from the classes above them, in a general exercise of reading in drafts on the plan of mutual instruction, in the same manner as in the Primary Schools. This exercise is under supervision of the Monitor-General of Reading and one of the Teachers, who not only maintains disci-



pline, but passes from draft to draft, pausing to hear them read, and suggesting useful hints to the monitors training those who may be deficient. This monitorial exercise is greatly beneficial to those of the upper classes who perform these duties. It draws on their mental resources, invigorates intellect, and trains them to the use of knowledge, by the practical exercise of what they may have acquired,—promotes in them active and industrious habits,—aiding, rather than hindering their own advancement, in accordance with the long-acknowledged maxim—"He who teaches learns." Those in charge of this general exercise of reading in drafts, should be careful not to notice faults, nor breaches of order, to the scholars themselves, but should address themselves to the monitor of the draft. This will encourage him, and also inspire the scholars of his draft with confidence in his ability to discipline and teach them, and will moreover induce respect for his authority as a representative of the teacher. It may also here be observed, that, as in the Primary Schools, the teachers should duly train their draft monitors in the requirements and duties of their office. It would also be well that the monitor should always read to the teacher, in the class-room, the same lessons subsequently to be read in the drafts. At the expiration of the allotted time for reading, the signal is given for closing books, when the draft commences an exercise of vocal spelling with definitions,—the words to be selected from the lessons read. Though the whole school is taught spelling and definitions by the general exercise of writing on slates from dictation, as well as vocal spelling, from the dictation book prepared for that use; nevertheless the drafts are to be practised in spelling at the close of their reading lesson; also the higher classes at the close of their reading lesson in the class-room, should be exercised in spelling from the reading lessons, and required to give the definition of the words as in the connexion there

used. They should, besides, have given them an assigned task of several paragraphs in the reading book for spelling and defining. For this purpose they should have a suitable expositor or dictionary for reference. Definitions learned from an assigned task in the columns of a dictionary are almost always useless; but the dictation by writing, and the methods here directed, will insure proficiency in spelling and defining.

---

#### WRITING IN THE UPPER SCHOOLS.

All the children in the school are instructed in this branch; commencing, and continuing to write on slates until they can write *large hand* well, and write a pretty even *small hand*, and form the letters accurately; when they are promoted to writing on paper. The drill for this exercise is thus performed:—The Junior Teacher, by signal, directs the senior writing class to arrange themselves in line on one side of the room, and the junior class on the other. He then, by signal, directs those remaining in the seats to rise and occupy the rear seats for writing on slates. In the meantime, the “Ink Monitor” places an ink-stand for every three of the writers on paper. The junior assistant then takes the copy-books of the senior class, and the “Monitor of Writing” those of the junior class; and each beginning from the opposite side of the room, passing towards the centre passage, places one at each seat; at the same time naming to whom it belongs; when the writer takes his seat, and the “Pen Monitor” lays a pen beside each writing book. The copy-books and pens being thus distributed, at a signal, they com-

Preparatory  
Drill.

Writing  
Materials  
distributed by  
Monitors.

Commence  
by signal.

Should write  
but one line,  
and again  
await the  
signal.

The Second  
Hour is most  
suitable for this  
exercise.

Last Writing  
Exercise  
to remain on  
the slate when  
returned.

Rank  
examined.

Promotion.

mence to write *simultaneously*: each class under the superintendence of a teacher assigned to it. As each scholar carefully finishes his line, he lays down his pen, and awaits the signal for commencing writing again simultaneously. During the time of the exercise, the teachers pass along the desks, to observe the writing, manner of sitting, &c. The second hour of the session is the most suitable for writing, as the movement of the hand is steadier, by their rest from the excitement of play or active employment that may have engaged them before coming into school.

The junior assistant takes charge of the writers on slates. These write from the painted copy-boards on the walls, or from a copy written with chalk on the black board in front of the teacher's desk. When the exercise is closed by signal from the junior assistant, the pens and ink-stands are collected by the respective monitors; then he comes again in front, and by signal, directs the slates to be put away *without cleaning off* the writing. Then he signals the writers on paper to take their books (opened) and arrange themselves, respectively, in the right and left passages next the side-walls, when the teacher of each class examines the writing, sending out in front those who merit promotion to the next higher class, or to the select class of specimen writers. The Monitors of Writing collect the writing-books as examined, and at the close takes the names of those to be promoted: while the junior assistant, by signals, directs all the writers to return to *their own seats*. During the exercise of writing, great quiet and stillness should be required. This should be uninterrupted, except as becomes necessary, by required signals, to direct the exercise, and the instruction to be given by the teachers.

## MANNER OF PRACTISING DICTATION IN THE UPPER SCHOOLS.

Dictation.

The Dictator should be the junior assistant, unless one can be selected from the higher classes, who has a correct knowledge of the standard of pronunciation, and who also has a clear voice and a distinct enunciation. Preliminaries.

The Inspecting Monitors occupy the seats at the ends of the desks or the last seat to the right of the scholars. They should be selected for their clear enunciation and correct writing.

The Dictator first takes his station in front of the whole school, and gives the order, by signal,—“Attention!”—at which, each scholar sits erect, in readiness to write.

After a short exercise of the hands and arms, which is imitated by the scholars, he gives the signal for withdrawing the slates from the apertures in the desks; and another signal for cleaning slates.

Then, with dictation book in hand, he passes along the passage to the left of the scholars, at the end of first desk of the lowest class, with his face towards the Inspecting Monitors on the opposite side; and, naming a class, he gives out a word, and spells and pronounces it. The Inspecting Monitor\* of the first desk of that class having responded to him in the same manner, the Dictator says —“Write;”—when all the scholars of that division commence writing the word.

Both Dictator and responding Monitor, in spelling the word, should pronounce and repeat each syllable; and, at the close, should pronounce the whole word. Each Syllable repeated in spelling.

Every scholar in the division should have his eyes fixed upon the Dictator when he is giving out the word; and in like manner upon the Monitor, when he responds; and Fixed attention to be given to the Dictation.

\* As a class occupies several desks, the Monitor of the First Desk of the class only responds.

then, with his eyes again directed towards the Dictator, he awaits the signal, or order, to begin writing.

The Dictator passes through the remaining classes in the same manner,—giving to each a word. Then, returning again to the first desk, he goes through as before ; and repeats the process until he shall have given out as many words as there are lines ruled on each slate.

Words to be  
written  
in column.

The several words should be written in column ; and each scholar should continue to repeat the same word on its appropriate line, from left to right, until another word is given out to his division.

Manner of  
Inspection.

When the last word in the column shall have been written, the Dictator resumes his station in front of the school, and says "Inspection : " when each scholar places his pencil beside the slate, and his hands behind him or resting at his side.

After a brief exercise of the hands and arms as before, on a signal from the Dictator, the Monitors leave their seats, and stand erect in a line in the passage ; while the Dictator goes to each of them, and examines their slates. He now returns to the front ; and giving a signal for the purpose, each Monitor passes behind the scholars attached to his own desk, and marks each word or letter that may be incorrect ; and sends to the Dictator such as may have been grossly careless and inattentive to the exercise, that they may be reported to the Teacher.

Cleaning  
Slates.

The Inspecting Monitors now remain in a line in the left-hand passage, till after a few motions for exercise, and a signal is given to clean slates ; when they return as before, inspecting the slates, to see if they are thoroughly cleaned ; and, on coming to their seats, rapidly clean off their own. It is very necessary that all these movements be performed as rapidly as is consistent with the *end* in view,—to write the word *correctly* without reference to improvement in *writing*,

The exercise is to be repeated until the whole time

allotted by the Diary of the school, is consumed. The Dictator then appears in front, as at first; and, by signal, requires the slates to be returned to the desks, with the last writing on them.

Slates to be returned with the last exercises on them.

Let strict attention be paid, during an interval to follow each cleaning of slates, to the practice of some bodily exercise—consisting especially of such movement of the hands, arms, and shoulders, upwards and backwards, as shall tend to expand the chest, and to impart a sensation of freedom and energy to the system generally.

Physical Exercise to follow each course of Dictation.

Dictation may be profitably varied, by occasionally extending it to entire sentences, and to punctuation; also to forms of bills of parcels, receipts, &c. In the case of the last two, however, their forms should first be exhibited on the black board; after which, the scholar should be required to write them from dictation alone.

Corrections from the foregoing.

As an exercise of a higher grade for the upper classes, words merely dictated audibly, without spelling, may be written down, with the definitions.

---

#### ARITHMETIC IN THE UPPER SCHOOLS.

Those classed in the simple rules, are taught alternately in drafts by monitors selected from the senior and junior classes in Arithmetic, and also in larger divisions in the class-rooms by the Teachers. The general exercise of ciphering in drafts, is superintended by the Teacher or one of his assistants,—the scholars either sitting on draft benches, or standing with the monitors in the passages along the walls. A black board is suspended against the wainscot for each draft, and all the class have slates and pencils in hand. The monitors, at the signal given, commence, with an oral exercise; after which they write an

Those in the Simple Rules taught both by Monitors and in the class-rooms by Teachers.

Method of Ciphering in draft from black board on slates.

Scholars take  
precedence as  
they complete  
their work.

To be taught  
to explain  
the processes.

The  
Higher Classes  
taught varied  
processes.

Importance of  
Arithmetic.

exercise on the black board, standing at the left of the black board, that the class may copy on their slates as he writes. The scholars of the draft proceed to perform the operation so soon as they have copied from the black board: and the scholar first completing the operation, if right, is placed first in the draft, and the next second, and so on till as many as can perform the work are thus placed above the rest. The draft Monitor then directs the one at the top, or head of the class, to begin performing the exercise on the black board, explaining it audibly to the draft; then the second takes a part, and so on, till all the class in succession have taken part in the exercise. The Draft Monitor, on failure of the whole to perform any part of the operation, explains it. The higher class, in the recitation rooms, are practised nearly in the same manner,—each performing an entire operation, and explaining it to the whole class; when the Teacher concludes by pointing out other forms of operation that might have been employed for the solution of the question.

Instruction in Arithmetic, conducted in this manner, becomes easy and intelligible; and the continued analysis in which the mind is employed, affords an excellent means of *improving* the reasoning and intellectual powers. As this is an important branch of instruction, the Teacher superintending the general exercise in drafts, should give exclusive attention to the exercise during its continuance, the same as when in the class-rooms.

---

#### GEOGRAPHY IN THE UPPER SCHOOLS.

All the readers from the 7th to the 9th class inclusive, learn Geography, and are divided into a Junior and a Senior Class,—each having two divisions. The first of the

Divided into  
Senior and  
Junior Classes.

junior class learns the geographical terms by oral, and sometimes by written dictation, with illustrations on the outline maps and the hemispheres on the walls; also the general divisions of countries on the Eastern and Western continents. The second of the Junior adds to this the use of the outline maps, as directed in the Primary Schools. The first of the Senior continue the use of the hemispheres and maps in general exercises. They also extend their knowledge of Physical Geography, as before suggested; and are taught to sketch outline maps on the black board. The second of the Senior Geography Class continue the foregoing, with exercises on the Terrestrial Globe. They are also required to draw maps; to furnish geographical written exercises descriptive of voyages; and to describe orally the distinctive character, physical and political, &c., of countries, as designated by the teachers.

Outline Maps.

Physical  
Geography.Drawing Maps  
and  
Geographical  
Composition.

#### GRAMMAR.

Grammar is likewise divided into Junior and Senior Classes. The first division of the junior class is taught Orthography and Etymology orally; and have illustrated to them the parts of speech. The second continue the same, with the use of the assigned class book, and written exercises on the slate, with the addition of Syntactical parsing.

Junior Class  
taught orally  
before use of  
Class Book.

The senior class has no division. They recapitulate the exercises of the junior with extension; with the addition of correcting false Syntax, and learning the rules of Prosody and Composition.

Senior Class  
only one  
Division.

Occasionally at the close of the reading lesson, the class should have a short exercise in Grammar, from some of the paragraphs read, to teach them the practical appli-

Parsing from  
the Reading  
Lesson.



Care  
to be given to  
analysis and  
construction of  
sentences.

cation of the subject. Availing themselves of this important means of improving the intellectual powers, and accustoming the expanding mind to analyse and discriminate, the teachers should frequently practise the scholars in prose and poetry; pointing out the natural order of words in speech, and the dependence of words and clauses on each other: which fully prepares them for syntactical parsing, and evinces their knowledge of it.

---

#### ASTRONOMY.

Divided into  
Two Classes,  
the Junior  
Class to be  
taught by use  
of the Orrery.

Astronomy, as the former studies, is divided into Junior and Senior. The first of the junior class is taught the definitions orally, illustrated by the Manual Orrery; the names of the planets and their relative distances, sizes, &c.; phases of the moon, and the changes of season. They should be so familiar with all this, as to illustrate it by the Orrery, themselves.

2nd Division  
of Junior by  
the use of  
Class Books  
and Charts.

The second of the junior class continues the foregoing with further illustrations, and the use of the Class Book and Astronomical Charts.

The senior class recapitulates the former exercises, with the Use of the Globes; and are taught to farther illustrate the subject, by drawings and geometrical exercises on the black board.

---

#### GENERAL REMARKS.

Classes to be  
examined in  
the previous  
lessons daily.

The Teacher, before commencing the lessons of the day, should recal to the consideration of the class, what was taught in the previous lesson: proposing such questions as may enable him to ascertain the degree of attention bestowed by each individual. While this is a

powerful means of advancing the scholar in his studies; it will, at the same time, be no less beneficial in improving and strengthening the faculties of attention and memory.

At the end of each month, a cursory review should be taken of what has been learned in the course of it. Regular periodical reviews should also be made of the entire studies they have passed through.

General  
Review at the  
end of each  
month.

The Principal of the school should, by all means, cause each one of the classes in his school, to come, in its turn, under his own notice and instruction, that he may have an intimate knowledge of its condition and wants. This will not only enable him to provide and arrange for deficiencies, but will also give encouragement to his pupils, and stimulate them to efforts for continued improvement.

Each Class,  
by turn,  
to come under  
the instruction  
of the  
Principal.

This review is the more necessary as respects those promoted from the Primary Schools; for, previously having been in the highest class of their school, and accustomed to be constantly taught by the Principal, they will be apt to feel discouraged, and perhaps dissatisfied, if not thus brought under the notice of the Principal. It should also be carefully provided for, that they be continued in all their accustomed studies, besides having due attention given to their instruction by the Principal: the Upper Schools taking up, and carrying out, what was begun in the Primary Schools.

This especially  
necessary  
in respect to  
those Pupils  
promoted from  
Primaries.

---

#### SHORT ORAL LECTURES ON THE NATURAL SCIENCES, AND EXCHANGE OF SCHOOL PRODUCTS.

This plan of operation was adopted into the system in 1846. It consists in the giving of short oral lectures on the natural sciences generally by the use of objects. It is an extension of the plan of oral instruction on the knowledge of common things, as practised in the

Plan adopted  
in 1846.

- Geometrical Drawings.** Primary Schools. It includes, also, linear drawing of the geometrical figures and ordinary objects on slates by all the pupils of the lower classes, and systematic instruction in the art to the higher classes, by "Chapman's System of drawing. One hour a week is given to each of these objects; and specimens of drawing are prepared for distribution to legislative and public bodies directly engaged in education, and to schools generally, inviting their attention to the subject, and an exchange of products of skill in drawing, mapping, and other manual arts; with the exchange also of *natural objects*, for forming school cabinets, to be used in giving brief and frequent lessons at times when most convenient, as a general exercise, and also in the class-rooms when suitable opportunities call for, and admit of it. The healthful, mental and moral stimulus exerted by this plan, and the auxiliary it proves to be in discipline, commend it strongly to attention.
- Systematic Instruction in Drawing.**
- Exchange of Products thus prepared.**
- Short Oral Lectures.**

The following are the resolutions by which this plan of instruction was adopted:—

**Resolutions introducing the subject.**

"FIRST—*Resolved*, That the hour appropriated, one day in the week, to the preparation of specimens for exhibition and distribution by *some* of the pupils, be now appropriated by the *whole school* to drawing either on slates or paper: and to the instruction incident thereto."

"SECOND—*Resolved*, That a portion of time, not exceeding one hour in the week, also be appropriated to employments incident to elementary instruction in subjects of natural science; such instruction to be given by *short oral lectures*, of from five to fifteen minutes, at times when it may appear most connected with other studies; or when time can be best so occupied, as a general exercise."

"THIRD—*Resolved*—That the use of one of the school rooms be allowed, not oftener than once a month, for meetings of committees of pupils, to confer on the forego-

ing subject, and to attend to more extended lectures on the natural sciences."

In furtherance of these objects, a School Lyceum should be formed among the pupils of the highest classes. This association should be under the supervision of the Principal and Teachers. The members should have the privilege of a suitable portion of time, once a week, for holding meetings in the school building. Committees of three or four should be organized in the Lyceum, for the various objects of its operations: such as committees on drawings, on mineralogy, on chemical experiments, on correspondence with schools, &c., &c. General meetings of the Lyceums of all the schools or delegations from them, should meet quarterly, at one of the school buildings, for lectures with more extended illustrations and experiments, and for other purposes incidental to the operation of this plan.

School  
Lyceum.

Committee of  
the Lyceum.

Meetings for  
extended  
Lectures, with  
Apparatus.

---

#### OBJECTS LESSONS, OR INSTRUCTION IN COMMON THINGS.

In the foregoing instructions for pursuing the assigned studies, the methods suggested have been such as would serve to render the early lessons in the Primary Schools both intelligible and interesting to the pupils. Still further variety and gratification might be afforded the expanding mind by brief oral lessons, to be given daily, with illustrations, generally from objects, having in view a knowledge of common things,—that is, those things which we see around us, hear of, and talk about,—or things in general. The cultivation of habits of observation by such a method, makes intelligent scholars. Such lessons by extension, and consequently increasing interest, would render the pupils of the higher classes the more intellectual as they advance in their studies. Which

Knowledge of  
Common  
Things.

Induces habits  
of observation.

Connects with  
the plan of  
Oral Lectures  
in the Upper.

First Lessons  
should be on  
Letters, Words,  
and  
Construction  
of Language.

Rudiments of  
Grammar.

Oral  
Instruction  
thereon.

Physiology.  
External  
Senses.

Moral Senses.

characteristic would be further strengthened by short *oral* lectures on the natural sciences, as now required to be given at convenient seasons in the Upper Schools. The first lessons should be on things with which they are most familiar; letters and words, the things they wear, eat, and use. For, although they are familiar with their names and uses, nevertheless they are quite ignorant of their nature and character. The acquirement, then, of such knowledge, will be a new and continual source of pleasure to them. Begin with letters, the *signs of sounds*;—the human voice, the nature of speech, and construction of language by syllables, words and sentences. Make such lessons, as they are continued, a means of presenting the elementary stages of grammar: the names of all things as being nouns; the words that are added to them to express their kind and quality as being adjectives: requiring them to give an example of each:—then conjunctions, as joining words and sentences:—all actions, as verbs,—those done to us, as well as by us: the little words taking the place of nouns to prevent repetition: prepositions as words expressing the relations of things, &c., &c. These, if illustrated by actions, as speaking, walking, singing, and by significant motions, would never be forgotten: for instance, by motion of their hands *above* their head, *below* their chins, *by* their side, *on* their head, *behind* their back; and to make the preposition emphatic, say—above, below, by, on, behind, show the relation of my hands and head, my hands and side, &c. They would thus be prepared to understand the rule of the grammar which says, “Prepositions express some relation of different things;” and so on of other rules. Next proceed to the form and structure of the body—speak of the soul, of the external senses, the moral sense,—the social duties; with evidences of the benevolence of the Creator as blended with every thing connected with animated nature. Such ideas should pervade these lessons generally. Proceed with

the manner in which natural life is sustained ; then the products of the Earth : edible substances ; roots, grain, fruit, &c., and artificial things. The Earth's structure, the starry Heavens. Hints of all these in their order, if the lessons are short and simple, would soon impress their minds with a great amount of useful knowledge. The diligent teacher of these things, will find a satisfaction in knowing that the time they may have devoted to these short oral lessons, has been profitably bestowed. Besides the common division of various substances into animal, vegetable, and mineral, they may be again divided into organic and inorganic. The first comprise those beings, which either have, or once had life, and the organs or instruments by which it is sustained,—such as the organs for breathing, for circulating blood or sap, and digesting food for the growth of every part. The second comprises those objects which never had life, or the means of sustaining it. The inorganic or mineral kingdom should first be considered. as specimens in this department are more readily obtained. The inorganic kingdom comprises minerals, metals, air, and water. The first two are substances from the interior of the earth, though sometimes found on its surface ; literally, they are those dug from a *pit in the earth*, that is a *mine*,—hence, called *minerals*. Metals in their rough state, as dug from the mine, being mixed with other substances, are called ores ; when separated they are called metals. Those most serviceable to man, as iron, copper, &c., are not only the most plentiful, but most accessible, being found no great distance from the surface. The most common and plentiful minerals also, are those which minister to man's comfort and convenience. There is coal used for fuel : *quartz* manufactured into glass ; *Feldspar*, into pottery and china ware ; porous quartz or *burr stone*, grinds our grain ; conglomerate quartz or *sandstone*, sharpens our cutting instruments ; granular *limestone*, gives us quick lime for plaster

Products of  
the Earth.

Animal  
Vegetable, and  
Mineral.

Organic and  
Inorganic.

Inorganic to be  
taught first.

Minerals and  
Metals.

Uses of some  
of the Mineral  
productions.

Classification  
by Natural and  
Artificial

Example of  
this.

Organic  
Divisions.

Mammals.

and whitewash ; *gypsum*, hard plaster and a fertilizer for the soil ; *hydraulic lime*, cement ; *serpentine* yields us medicine and paints, &c., &c. These objects would soon be distinguished by the pupils, and they would collect them for themselves, or a school cabinet. All substances may also be classed as natural or artificial. The natural are creations or creatures of God, the creator. Artificial are such as made by the art of man,—they are called manufactures, from *manus*, a hand, and *factum*, to make. Honey, wax, oil, milk, resin, hair, wool, fur, and feathers, are natural substances. Paper, cloth, brick, muslin, silk, leather, calico, linen, glass, soap, and parchment, are manufactured or artificial substances. Some of them, as paper, linen, and muslin, are made of vegetable substances ;—others, such as leather, silk, and parchment, of animal substances : *soap*, animal and vegetable ; and *glass*, mineral and vegetable.

These details, if briefly given by frequent lessons, and accompanied by objects, will be well remembered, and by increasing the power and habit of observation, will become new means of augmenting their knowledge ; while their moral influence will be, to draw the mind from vain and trifling thoughts to those which are solid and useful.

The organic, comprises the animal and vegetable kingdoms. Animals are living creatures that breathe, and move about,—walking, creeping, swimming, and flying, except in the instances of the lowest order or class of them, called *Zoophytes*, or those nearly allied to vegetable life : they are a sort of animal plant, remaining and sustaining life in one place, such as sponges, corals, &c.

Animals may be divided into MAMMALS, those nourishing their young with milk. This class includes, 1st,—all animals with four feet, or *quadrupeds*, (from *quartuor*, four, and *pedes*, feet,) such as cows, camels, horses, sheep ; 2d,—*Quadrumana*, or four-handed (*quartuor* and *manus*) as

monkeys, baboons, &c.; 3d,—**CETACEA**, or whale kind, (from *cetus*, a whale;) and 4th—**BI-MANUS**, or two-handed, as man, who stands at the head of the animal creation.

The next class are **BIRDS** or *bipeds*, animals with two feet. These feed on seeds, some of them on insects and on flesh.

Birds.

Next **REPTILES**, (from *repo*, *reptum*, to creep.) Of this class are lizaards, crocodiles, tortoises, frogs and snakes.

Reptiles.

Next **FISHES**, or those which live in the water, having fins, instead of hands and feet, for motion.

Fishes.

Then **INSECTS**, or those divided into three parts (from *seco*, *sectum* to cut), such as flies, bugs, bees, wasps, butterflies, spiders, beetles, &c.

Insects.

Next **VERMES** or **WORMS**—which class are soft-bodied animals, destitute of limbs—some of them provided with shells, as polypus, coral, and shell-fish.

Worms.

And, lastly, **MOLLUSCA** (from *mollis*, soft), as having no bones, and being soft-fleshed, as oysters, clams, &c.

Mollusca.

This general classification of the animal kingdom, will excite the love of nature, so characteristic of the young, and which it is desirable by all means to cultivate.

The vegetable kingdom also, is organic; having life, and growing out of the ground. They feed, grow, and breathe, having organs for these purposes; but they do not move from the place where they grow, with the exception of a very few water plants, which rise from the mud to the surface of the water to blossom. Plants are sustained by the soil in which they grow; nourishment passing through the roots by veins or tubes to the branches and leaves, &c.

Vegetable  
Productions.

The Teacher should keep a list of the things taught, and constantly review it. The reading lessons will also give frequent opportunity of bringing this kind of knowledge before the pupils; and any object around them in the school-room, will afford a subject for such short oral lessons.

Teacher to  
keep a list of  
subjects taught  
and frequently  
to review the  
Lessons.



## SYSTEM OF EDUCATION FOR GIRLS.

---

The system of teaching in the boy's school is applicable, in all its parts, to the schools for girls. It will be, therefore, necessary to detail only the method by which sewing is taught.

### GENERAL ARRANGEMENT.

For instruction in sewing, the girls are seated at their desks, arranged in classes according to their proficiency, in numerical order. Each distinct operation for different kinds of work, constitutes a class, viz :—

1. Folding down for hemming.
2. Hemming.
3. Folding down and fixing for sewing and felling.
4. Sewing and felling.
5. Drawing threads and stitching.
6. Gathering and fixing on gathers.
7. Button holes.
8. Herring-bone stitch.
9. Darning.
10. Tucking and whipping.
11. Marking.
12. Ornamental work.

The best workers are selected from the highest class for monitors, and one is appointed to each desk. These continue monitors of the same desk till appointed to a higher

class ; and each girl in the class continues to sit at the same desk while she remains in the class.

There is a *General Monitor* who superintends all the monitors of the desks.

On the afternoons assigned to sewing, no other exercise is attended to but reading ; for which the last hour is appropriated. After sewing, is the usual recess, and mustering for marking attendance as usual.

Each monitor is provided with a work-bag for putting up the work of the class, which is appropriately labelled or numbered ; and also a thread and needle case, or other convenient appliance, for containing a pair of scissors, and needles and thread sufficient for the class, and for which she is responsible.

At the appointed time, the whole School being seated in the desks in the order of classification for sewing, the monitors, by a signal, assemble at one place, and receive from one of the assistants the work and materials for the use of their respective classes.

As the order in which the commands are given is invariable, and well known to the school, in place of giving them by words, they are given by signal, which is generally preferable, not only in this, but in all other exercises of the school.

The monitors being at the head of their desks, and having deposited their work-bags there, are signalled to pass in front of their desks, and give each in the class a needle and thread : and at another signal, take the work-bag, and distribute to each her work. The Monitors having returned to their stations, the Monitor-general says,—“Show work,” when each girl shows her work, held up in her left hand. The Monitor-general then says—“Down,” and to the monitors, “Go on,” when they proceed to sewing.

When a girl wants work, she signifies it by holding up her hand, and is supplied by the monitor. Every other

want is signified in the same manner, and so supplied. The monitors of the desks signify the want of work or materials in the same manner, and are supplied by the Monitor general.

When any disorder prevails in the class, it is signified by the monitor in the same manner, and is attended to by Monitor-general or teacher then on duty, as it is an unchanging rule, that no monitor leaves her desk and station till discharged from duty at the close of the exercise she has in charge.

At the close of the exercise, by signal from the monitor, the work is held up for inspection; when the Monitor-general and teacher superintending the divisions, pass in front of the desks, and examine the work, which has been previously, from time to time, inspected by the monitors of the desks.

At the close of the inspection of work, the monitors being signalled for the same, collect the work and materials, depositing them in the work-bag of the class, which they return to the monitor-general to put up. The monitors return to the desks, and the school, by signal, repair to their usual seats, which terminates the exercise.

#### GENERAL REMARKS.

Cleanliness, neatness, and order, should be particularly enforced during this exercise of the school. The monitors therefore should not be allowed to tear the materials when necessary to separate them and put them into shape for sewing, but should, by all means, be instructed to draw a thread and cut their work straight. These and other habits of neatness and carefulness, should be enforced, which will not only have a beneficial influence, but facilitate their improvement in sewing.

No scholar should be promoted to another class till able to work the preceding stitch with neatness and care, and such as have completed their course by passing through

the various classes, may be allowed, on the sewing days, when not acting as monitors, to exercise themselves in various works of taste, in which they may be directed by the teacher.

Great care, especially in large cities, should be taken that the children be well instructed in plain sewing, and in fixing and fitting their work for sewing—to hem, fell, sew, and darn well, as these qualifications will greatly promote their usefulness in any station.

Those conversant with the state of the poor, may have observed how great an advantage to them is the mere knowledge of darning; and how far it tends to make them notable and industrious. This fact bespeaks the necessity of attention to this branch in Common Schools, especially in cities.

That the classification and method of the foregoing plans may be still farther conducive to such desirable ends, the teacher should be strictly careful that the performance of them go on with the greatest regularity and precision; and thereby secure to the pupils not only the desired advancement in the knowledge of a skilful use of the needle, but the important moral influence of industrious and cleanly habits, by methodical plans of teaching this branch of domestic economy, so beneficial to the poor and middling classes of society, and so useful to females in any station of life.

---

#### **DIRECTIONS & CLASSIFICATION FOR SEWING.**

##### **FIRST CLASS.**

###### **FOLDING DOWN FOR HEMMING.**

Girls who have not learned to fold down a hem, are placed in this class, and are taught on pieces of waste paper, because paper retains the folds better than linen or cotton, and is done with more facility by little children or beginners. Sewing being taught in the Primaries, where the children are small, the use of paper is essential.

The monitors of this class are furnished with slips of paper about four inches long, and two broad, by the monitor-general, at the time that the monitors receive work for the girls under their care.

When the command is given for the monitors to give out work, the monitors of this class give a slip of paper to each girl; and when the general order is given to begin work, the girls of this class fold the edges of the paper down, as if they were folding linen for hemming.

Each monitor is constantly engaged in inspecting the work of the girls in her desk, giving instructions, and keeping them employed.

When a girl has finished the folding of one slip, she holds up her left hand as a signal to her monitor, who goes and inspects the performance, and gives her another slip: and in this way the class is constantly employed.

When a girl has learned to fold down a hem neatly on paper, she is promoted to the

## SECOND CLASS.

In this class girls are taught to fold down and hem on linen, or cotton.

Here they are furnished with pieces of linen or cotton, the size of the slips of paper used in the 1st class, and also with needles and thread (colored cotton, so that the stitches may be seen, and the work more easily inspected).

## THIRD CLASS.

### FOLDING DOWN, AND FIXING FOR SEWING AND FELLING.

Girls who have learned to hem only, form this class, in which they are taught by means of paper first, to fold down and fix work for sewing and felling.

Two pieces of paper are given to each girl, which, when folded, they pin together.

When a girl has learned to do this neatly, she is promoted to the

## FOURTH CLASS.

### SEWING AND FELLING.

Girls in this class are supplied with two or three pieces of cloth, which they are taught to sew and fell, and which they afterwards hem round.

When a girl can perform the work of this class neatly, she is promoted to the

## FIFTH CLASS.

### DRAWING THREADS AND STITCHING.

The girls of this class are furnished with pieces of cloth, on which they are taught to draw threads for stitching; to fix the work, and to do every thing in that specimen of this class-work.

When a girl is capable of performing the work of this class, she is promoted to the

## SIXTH CLASS.

### GATHERING AND FIXING GATHERS.

In this class each girl is supplied with a pair of wristbands (which may be the work performed by herself in the preceding class), and a piece of cloth the width about three lengths of the wristband, the length three inches. When learning to gather, children should be taught to turn down the edge in the same manner as the first turning for a hem, and then turn it back, that they may leave a line to guide them; they ought also to divide into quarters the edge to be gathered and the edge which is to be set on the gathers, that the fulness may be equal. It is a useful practice for children to count their stitches when at work, that they may put nearly an equal number of gathers in each quarter.

After a girl has been taught to gather, and fix on gathers neatly, she is promoted to the

## SEVENTH CLASS.

## BUTTON HOLES.

Small pieces of cloth are given to the girls in this class, who first double them and sew them round. They are afterwards taught to cut the holes to the proper size, and to work them. As many holes are cut and wrought in each piece of cloth as may be conveniently made; and, for facility of inspection, the holes are wrought with thread of different colors.

When a girl can work button holes well, she is promoted to the

## EIGHTH CLASS.

## SEWING ON BUTTONS.

In this class the girls are furnished with a small piece of cloth and a few buttons; and they are practised in sewing them on till they can do it neatly. Where wire rings can be procured, buttons may be made by covering them with cambric muslin, previously cut to suit, and afterwards neatly stitched round the wire.

## NINTH CLASS.

## HERRING-BONE STITCH.

The girls are first practised on pieces of linen or cotton, and afterwards taught the use of the stitch by performing it on pieces of flannel. This work is principally employed in making flannel clothes, to avoid the clumsy seams made by double turnings.

## TENTH CLASS.

## DARNING.

This is taught on pieces of cotton or canvass. The holes are purposely cut, and the work is performed with thread of different colors, the warp of one color is crossed

by the woof of another color, that the work may appear more distinctly,

### ELEVENTH CLASS.

#### TUCKING AND WHIPPING.

Before children fold for plaits or tucks, they ought to have a piece of card the exact width from the edge of the frock or cap to the edge of the tuck or plait, in order that they may crease it correctly ; and it is desirable that the card be an exact square, to prevent any possible mistake. When the first fold is made, the double edge should be turned down like a hem, and then turned back again in the same manner as for gathering, to make a line for a guide in running.

Pieces with three tucks, bordered with a frill, serve as specimens of whipping which is also taught in this class.

### TWELFTH CLASS.

Marking on the sampler of canvass is taught in this class, both capitals and small text, and the nine digits and cipher.

When a girl has regularly completed the foregoing, having been duly promoted, she is privileged to advance to the

### THIRTEENTH CLASS.

#### OR ORNAMENTAL CLASS.

In this class, after having worked a pattern set, giving a specimen of each classification, she is taught such ornamental needlework or other works of taste, as the Teacher may be pleased to direct. This cultivation of taste and skill has a favorable influence on the young mind, refines the feelings, induces to good morals, and proves an acquisition useful in after life.



## **PART FOURTH.**

### **MECHANICAL ORGANIZATION,**

**FOR CARRYING OUT THE DISCIPLINE AND INSTRUCTION OF THE SCHOOL.**

**Mechanical  
Organization.**

GREAT care is necessary in the mechanical arrangements of the school, for effecting that degree of order and method, requisite to secure thorough instruction, prevailing good habits, and right moral influences among the pupils.

**Pupils to be  
constantly  
employed.**

Subjection to order, diligence in the pursuit of knowledge, and propriety of deportment among themselves, should be provided for by such a judicious mechanical organization, as shall ensure the constant employment of the pupils, by duly proportioned exercises; and also, such reasonable recesses during school hours, as shall not only invigorate the relaxed physical powers, but give renewed spring to intellect, and consequent pleasure in mental exertion. For these ends, the exercises should not be too long; the changes of exercises should be effected by rapid evolutions, and without bustle; and the new exercise commence with but little delay, and from entire silence and order.

**Exercises  
should be short  
and changes of  
Exercises  
to be effected  
with spirit and  
without delay.**

**Diary.**

All this should be methodically arranged by a Diary, judiciously dividing the thirty school hours among the assigned studies, &c. A sample of such is given in the Appendix. Local circumstances may sometimes, perhaps, require a temporary, or permanent change in some of its provisions. It is, however, desirable, as far as circumstances admit of it, that there should be a uniformity in these respects in all the schools.

**Uniformity  
in the Schools  
desirable.**

The Monitorial System of Organization, offers great facilities for this, as well as for what should be the great aim and purpose of instruction,—“That the business of the school should prepare the pupil for the business of life.” The precise manner in which an organization is to be formed for effecting this purpose, is the subject of this division of the manual.

The first consideration is, the qualifications of the monitors, which are of two kinds: monitors of instruction—and such as are designed to aid in the mechanical operations incident thereto. The holding of these stations, should be considered a privilege—being positively beneficial to the monitor himself. He learns while teaching: and his occasional employment in carrying out the business operations of the school, tends to the development of the higher principles of action, and to the formation of useful habits;—of industry, order, method, despatch, self-control, and of faithfulness in the discharge of the various trusts committed to his hands. These are the benefits, which a vigilant and judicious Teacher may secure to his pupils by this system.

Monitors  
of two kinds.

Benefits of the  
office to those  
exercising it.

The Teacher should keep a list of those of his pupils who are patient, good-tempered, active, industrious, and “*apt to teach*,” such, especially, as manifest a faculty of *maintaining order*, as the representative of the Teacher. From among these, he should select his monitors: their example will have increased influence in that capacity, as they will thereby blend more generally with the scholars, and thus incidentally cultivate in others the same habits; who, thus improved, will become suitable candidates for monitors, and may also, from time to time, be added to the teachers’ list; and even should they not promise to be so expert as those who have been accustomed to the duties, they may, nevertheless, become useful monitors by proper training in the class-rooms, or at brief opportu-

Teachers  
to keep a list of  
such whose  
qualifications  
fit them for the  
office.

Monitors  
should be  
trained

regular drill  
in the  
class-rooms.

by brief opportunities after school hours. Such a practice would soon bring them to the desired point of improvement; and thus a sufficient supply of monitors might be kept up for the school.

All the Pupils should have full opportunity of instruction from the Teachers. They should also enjoy the privilege of using their knowledge by imparting it to others.

It will be perceived, that provision is made for thorough instruction to be given to all the pupils, by divisions in the class-rooms, under competent teachers; by which, they thus enjoy the same advantages that are offered by other systems; beside which, they have, while under careful supervision of one of the teachers, the further privilege of mental training, by using, for the benefit of themselves and others, that knowledge they may have acquired.

No lessons studied in school.

By this arrangement, no lessons are at any time learned in school; and the whole time is there employed in teaching, and being taught.

Forms character.

The trust reposed in the pupil by the various monitorial arrangements, forms his habits, and gives integrity of character,—impressing him with a proper sense of reciprocal duties.

Teaching that we know, gives more accurate knowledge and impresses the subject more fully on the mind.

By teaching others what they have recently learned, the pupils are using the most effectual means of acquiring a more thorough knowledge of the subject, and of impressing it more fully on the mind.

Monitorial duties do not lessen opportunities of instruction to any.

It should be understood, and so arranged, that monitorial duty should not be considered as lessening opportunities of instruction to the pupils acting in that capacity;—but all should have a due proportion of personal attention and careful instruction from the Teachers, among whom the business of instruction is divided in each school, whether of a Primary grade or an Upper School.

Monitors to be appointed to teach only that they understand.

The precaution is necessary, that the monitors be appointed to teach only what they understand, and the practical exercise of which, may further develop their faculties.

Arrangements for instruction.

While divisions of the several classes are constantly under instruction in the class-rooms, and, if it need be, also in some part of the main school-room, by a sufficient

number of Teachers, one Teacher also has charge of a large portion of the school at some general exercise under monitorial order,—either reading, writing, dictation, geography, ciphering, reciting tables, or in oral spelling, also sometimes practised by dictation with definitions in writing.

One Teacher to have charge of a general exercise.

Oral Dictation and Vocal Spelling in drafts.

The Teacher having charge of the general exercise, is aided by a Monitor-general of the studies for the time pursued, who, while maintaining order by his vigilance and activity, is also sometimes engaged in teaching the drafts (or divisions of classes); thus training and disciplining the monitors, by reminding them of their duties, and guiding them to right methods of teaching.

A General Monitor required in all General Exercises.

The Teacher on duty trains the Monitors.

Besides these general exercises by only a portion of the school, there are other general exercises of writing and dictation, and oral instruction, in which nearly all the pupils are engaged, generally under the Principal in the main room.

General Exercises in which nearly all are engaged.

These general exercises improve the social condition of the school. It is therefore always desirable, that all the scholars should be convened in the main room at the opening and closing of the school; and, if practicable, also, that every Teacher be present, and that the Principal take charge of the school at such times.

They improve the social condition of the school.

At the closing and opening exercises, all the teachers and pupils to be in the main room—the Principal in charge.

Two sets of Draft Monitors should be chosen: one from the highest class of the branch taught, and another from the next grade or division.

Two sets of Draft Monitors to be chosen.

Draft Monitors of Reading should, themselves, read in turn, and occasionally read for those of the draft who read inaccurately, and require that they read again: at other times, one of the pupils of the draft is required to do this.

Monitors read in turn. Faults corrected by reading after the monitor or one of the pupils of the draft.

On the occurrence of any breach of order which he may fail to check, the monitor should signify the difficulty by raising his hand; when the Monitor-general of the Exercise, or the Teacher then on duty, (they being constantly

Discipline of the drafts. Monitors to signify difficulties by raising the hand.

vigilant on this point), repairs to the class, there to adjust the difficulty, or to send the refractory to the Principal in the class-room, or to register the name of the delinquent for the same reference.

Pupils  
to signify their  
complaints in  
the same way.

The scholars of the draft, also, may signify their grievances in the same way, and the same prompt attention should be given to them, as to the monitors. The scholars of the draft may thus obtain redress for any neglect, or abuse of authority, on the part of the monitor.

Proclamation  
of this to be  
frequently  
made.

Monitors and  
pupils have the  
same means of  
redress.

Constant vigilance should be exercised to check these evils; for which end, the Teachers should frequently proclaim it as a principle in the operations of the school, that all are on the same footing, and that both the monitor and pupil have the same means of redress, and equal power over each other.

Forming and  
opening drafts  
to be by signals

Manner of  
closing the  
exercise.

At the commencement and close of these general exercises, the forming and opening of drafts should be effected by signals. At opening drafts at the close of the exercise, should they be seated (as at ciphering, &c.), the monitor, on rising, directs the draft benches to be arranged along the wall as at first; and also has the books collected by one of the draft. The Draft-Monitor, on receiving them, remains at his station till the classes return to their seats; when, by signal, he takes the books or other appliances, as the case may be, to the Book-Monitor, or other, and repairs then to his own seat.

Monthly Index  
of Monitors  
prepared.

The Teacher should cause a monthly index of the various monitors to be drawn up,—designating the monitors of every department, both of discipline and instruction, and have the same hung up conspicuously in view, that it may be consulted by all.

Monitors of  
Instruction  
and Discipline  
to be rewarded  
by privileges.

Monitors of every kind should be distinguished and rewarded for diligence and success in their several duties of labor and instruction. This should be by certain privileges and honorary tokens,—such as being presented to the School Section as successful monitors, to have their

names appended to a list of merit to be hung up in the school-room ; by dismissal in advance of the rest from five to fifteen minutes ; or by anything else, in the discretion of the Teacher, that may be deemed a privilege by the scholars themselves.

List of Merit.

Privilege of  
dismissal  
a few minutes  
in advance of  
the rest.

The Teachers, moreover, should avail themselves of every opportunity to encourage and inspire the monitors in the discharge of their duties ; and never seem to suspect that the duties of the office are burdensome to them. By this means they will elevate the office in their estimations, and persuade them to a cheerful and active performance of duties, so beneficial to them as a means of mental improvement, and of acquiring good habits.

Monitors to be  
duly  
encouraged.

#### EVOLUTIONS FOR GENERAL EXERCISE IN DRAFTS.

At times, the pupils in the Upper Schools, after recess, repair from the yard directly to the class-rooms and draft stations, for a general exercise ; but, should they be at their seats, the evolutions for the change of exercise are thus performed in a quick and orderly manner :—

Manner of  
repairing to  
draft stations  
for a general  
exercise.

The Junior-Assistant, who more generally has the direction of these movements, stands near the platform, in a position to be seen by all. He then gives a signal by a clap of the hand, or at discretion uses some other signal ; and having the attentive eye of all, he exercises them with various motions of the arms and hands. Then bringing them to entire silence and rest, he says—" Monitors of Drafts to their stations ;" at which, the monitors arise, and repair to their assigned stations along the wall. He then, again signals by a clap of the hands, and says—" Look !" and then, by motions, directs those in the desks to rise, " Step out,"—" Look !"—Then, with a right and left motion of the opened hand as held perpendicular, he directs the movements. The scholars, having faced to the right and left, move quickly out to the

Evolutions for  
forming drafts.

draft stations, and are arranged by the monitors in the drafts for reading or ciphering, as it may be.

At the close of the exercise, by similar signals and commands, they rise, open drafts to form into line, and return to their seats.

---

DUTIES OF THE MONITORS OF INSTRUCTION.

The Monitors of Instruction are :—1st. Monitor-General of Reading ; 2nd. The Monitor-General of Dictation ; 3rd. The Monitor-General of Arithmetic ; 4th. The Monitor-General of Writing ; and the Draft Monitors of Reading and Ciphering. Their several duties are as follows :—

“ *The Monitor-General of Reading* ” must be active and vigilant : he aids the Teacher who has charge of the general exercise of reading in drafts, and performs the like duties with him, going from class to class as may be required, to enquire into misdemeanors that may have been signified to the Monitors of the Drafts ; and referring all refractory pupils to the Teacher on duty. He also directs the attention of the monitor to any disorder in his class, or any error in the lesson,—requiring him to correct them ; and also guides him to right methods of teaching.

“ *The Monitor-General of Dictation*,” should be a good reader, capable of distinct and clear enunciation, and familiar with the spelling columns of the Dictation Book. Where it can be so arranged, the Junior Assistant Teacher should, generally, perform the duties of this office.

“ *The Monitor-General of Arithmetic*,” should be one of the advanced pupils. His duty is to visit all the drafts during the general exercise of ciphering in drafts, aiding the Teacher on duty in the same manner as before stated of the Monitor-General of Reading. At the time of this general exercise, a division of a class might be put in charge of an advanced pupil ; who, while performing his

own task in arithmetic, might explain difficulties, rules &c., to any of the class who signify the need of it by raising the hand.

*"The Monitor-General of Writing,"* has charge of the pens and copy-books; assists the Teacher on duty in placing them at the writing stations; and directs the Pen-Monitor to supply the pens. He then attends to the wants of the class, and aids in collecting the books at the close of the exercise, &c.

*"Drafts' Monitor."*—Draft Monitors are monitors of instruction, who, between the times of their recitation in the class-room, aid the Teacher in the management and instruction of the school. Their duty is, to teach a draft or a small division of a class, under the supervision of the Teachers and the Monitor-Generals of Reading and Arithmetic, &c. They should report to the Teacher promptly those pupils of their draft, who may be fit for promotion; and for each pupil who shall actually be promoted from their draft, should receive a credit mark from the Principal: a certain number of which, shall entitle the monitor to privileges, as provided for.

---

#### MONITORS OF THE MECHANICAL OPERATIONS OF THE SCHOOL.

*Book-Monitor.*—His duties are—1st. To keep an accurate list of the books in use of the reading classes at the time of his appointment, those added during the period of his service, and such as have become useless. 2d. To report to the Teacher any abuse of books by the pupils or draft monitors. 3rd. Previous to school being brought into drafts for reading, with the aid of an assistant, to have every draft supplied with a sufficient number of books; or if ciphering in drafts be the exercise, to supply the necessary number of Class-Books for the divisions that need them, and to each draft a piece of muslin or



some other appliance for cleaning the black-boards of chalk. 4th. At the close of the exercise, with his assistant, to collect the books, chalks, &c., and place them again carefully in the book-closet.

*Street and Yard Monitors.*—These are stationed at the school door and entrance of the yard, while the school is assembling; and at dismissal, report any disorderly conduct observed among the pupils.

*Monitors of Ventilation.*—These observe the Thermometer during school hours in the winter season; regulate the fires; and, under the advice of the Teacher, attend to the means and appliances for ventilation.

*Fuel and Fire Monitors.*—These are to see that the wood-racks are filled; that kindling material is provided; and that the fires are made three-quarters of an hour before the opening of school.

In the Primary Schools, some of these mechanical operations of the school are attended to by the Junior Teacher, with the Assistance of the older scholars.

The Teacher will further promote the well-being of the school, by extending the management by monitors, to minor matters: there may be monitors to have charge of the ink; to provide water at the recess; to record the tardy scholars; to lock and unlock the gate. &c., &c. The performance of these services by the pupils, may be so managed as to be no loss of time to them, and may well be considered a part of their moral and physical training, having a bearing on their future usefulness in life.

## APPENDIX.

---

### VENTILATION.

STRICT attention should be paid to all the means provided for temperature and ventilation. During the season of fires, the thermometer should be watched,—and the ventilating flues, windows, doors, and stoves, should be constantly attended to,—and every precaution taken to maintain as pure an atmosphere in the school-room, as circumstances will allow. This is not only necessary, for a proper and free action of the physical powers,—but it will be found greatly to influence every mental exercise ; for, both will partake of either languor, or vigor, according as ventilation is neglected, or duly attended to.

Before the scholars have been in the room 20 minutes, attention should be given to ventilation. First, open all the ventilating passages for ingress of air, whether they be under the stoves, or elsewhere. Secondly, open all the passages for egress ; and should these not be sufficient, let the upper sash of the window, to which the valve curtain is attached, be lowered 3 or 4 inches. Should the curtain\* set outward, all the windows on that side of the room may be lowered a short space. If the room is not fitted for ingress of air at the floor, the doors should be opened, or the lower sash of a window most remote from the scholars, may be raised. At each recess, the windows on the windward side should be raised, and fuel added to the stoves, that the room may be warm when the children return to their seats.

\* This is a strip of muslin 6 inches broad, by 24 to 30 inches long, which hangs floating from that part of the window frame, with which the sash will come in contact when raised fully up.

It should be remembered, and so explained to the scholars, that the air from our lungs is injurious to health, and should not be again breathed, but should be permitted to escape out of the building.

The ingress of currents of air, setting strongly upon the heads, necks, and backs of children, is highly injurious, and should be guarded against; and here, it should be borne in mind, that the opening of the upper sashes, and apertures in the ceiling, though intended as means for the *egress* of air, very often produce the opposite effect, of admitting strong currents of air inward; and it will depend on the particular direction and force of the wind, and on the degree of the temperature of the air of the room, whether the air take an outward or inward direction through such passages;—and hence the propriety of the foregoing suggestions, as to the proper mode of ventilation.

The teacher should be careful to require all the scholars to go out, except such as may reasonably be excused on account of infirmity or sickness; and even these should be required to change their places, and to exercise themselves by walking to and fro in the school-room. At all seasons, at the close of school, all the doors and windows should be opened for a few minutes, in order that a pure atmosphere may be admitted and retained during the noon-time recess, or at night. A thermometrical diary must be kept during the winter season, and the temperature of the room noted at the opening, middle, and close, of each daily session. Further directions on this point are given in the instructions for making fires. The window-blinds and curtains are for the purpose of guarding against the sunshine, or observation from without. They should, therefore, be so managed, as only to exclude the direct rays of the sun, and kept open or shut accordingly. When required as a screen from observation, they should extend no farther than necessary for that purpose. Attention to these rules will give an air of cheefulness within, so con-

genial to the young. It is important, that this fact be impressed on all—that air, and light, are grand essentials in a school-room: let the first be freely admitted—and the second never causelessly excluded.

---

#### FIRE.

THE ashes should be taken from the wood stoves in the morning only, leaving a layer of one inch in depth: then proceed to build with the materials after the following manner. Place one large stick on each side; in the space between them, place the kindling wood; and above it, the small wood, somewhat crosswise; then, set fire to the kindling, and close the stove door. See that the dampers are properly adjusted; (these are so arranged, as to open the draught when the handle is parallel with the pipe). If the materials have been laid according to the foregoing directions, the combustion will be free. Should the temperature of the room be as low as 40°, fill the stove with wood. Under ordinary circumstances, in thirty-five minutes the temperature will be raised to 60 degrees,—at which point it should certainly be, at the time of opening school: when the stove may be supplied with one or two large sticks. At all times, before supplying wood, draw forward the brands and coals with the fire hook. If there should be too much fire, open the stove door,—or, what may be better for economy, effectually close the draft at the stove door with ashes. By attention to all these directions, the temperature may be maintained, the wood entirely consumed, and the thermometer stand at 60 degrees, at the close of the school; which is desirable in cold weather, so as not to subject the pupils to too sudden a change of temperature on going into the open air. The evaporating pan should be kept *clean*, and never be without water, when on the stove.

## FUEL.

THE Principal of the male department of the upper schools, and the Teachers of Primary Schools, should give a receipt for all fuel received at the building. They should also supply the sawyer, with measures to which the wood should be cut for all the stoves. Let the wood be sufficiently short, to admit of the door's closing freely. If it is of ordinary length, it will, by *once* cutting, give *one* length suited to the large stoves, and *one* of sufficient length for the smaller ones. Should the wood run longer than ordinary, one-fourth of it, (taking the smallest in size,) must be cut to suitable lengths, for the small stoves. One load of pine wood, for kindling, will be found sufficient for one department of an upper school,—and half a load for a Primary School. This should be cut in lengths of about eight inches. Piling the wood will require care and watching, to see that it lies close, and is cross piled, so as to prevent pressure against the sides of the wood-house. Faithful attention to piling, will save much time and trouble in getting the wood for daily use; as well as, secure the wood-house from damage. This, also, will allow of the wood being taken off from top to bottom, by tiers or rows—which should always be done; as it saves time, by preserving the wood-house in order—and inculcates neatness, and method, in the practice of domestic economy. Before receiving wood again for the season, the wood-house should be cleared,—and what remains be so piled, as to be the first burned at the ensuing season.

---

 SWEEPING AND DUSTING.

For a large room, or one department of a Public School building, six brooms will be found sufficient to be in use. When half worn, they will serve for sweeping the yard; and when well worn down in that service, will still be useful for scrubbing, with water or sand; and, if properly used by the

sweepers, will be evenly worn to the last. Before sweeping, pull down the upper sashes, and raise the under ones, on the windward side. Let the sweepers be arranged, one to each passage between the desks,—and, beginning at the windward side, sweep the dirt before them, till it is carried forward to the opposite side of the room. The broom should rest square on the floor, and, with the motion used in raking hay, should be drawn towards the sweeper, without flirting it outwards, or upwards, which raises unnecessary dust, and wears the broom irregularly. The dusting is to be done in the same regular manner, allowing a suitable interval after sweeping. If at noon, dusting should be done shortly before school-time; if at night, dust the next morning. In out-door sweeping, the same rule is to be followed—the sweepers going in ranks, and sweeping from the windward. Let the scrubbing be done by a similar method. When once acquainted with these methodical plans, the cleaners will' do the work, not only more effectually, but with more satisfaction and ease to themselves—and being a part of domestic economy, it will be, so far, an advantage to understand how to do it well.

---

#### RECORDS.

WELL kept records, indicate a well kept school. They say much for the teacher, and do much for the scholar; for, if the records are rightly adapted to the end, they become incentives both to teacher and scholar. And, in Common Schools, (where reports are rendered necessary by legal requirement,) they are a source of satisfaction to the Teacher, and Committeemen,—besides being a saving to them, of much trouble and perplexity. For these ends, therefore, they should be kept with care and accuracy, and by no means be allowed to get *behind-hand*: thus only, will the teacher be enabled readily, and at all times, to give satisfactory information relative to the state and progress of the school.

The School Records should be few, plain, and simple; and so arranged, as neither to burden or embarrass the teacher,—nor require any explanation from him.

The following is a list of the necessary records, both for the Primary, and Upper Schools; and annexed, are the proper forms for them; as also the blanks for reporting.

1. *Register.*
2. *Roll or Attendance Book.*
3. *Class Book, (or Record of Lessons and Conduct.)*
4. *Weekly Report Book.*
5. *Yearly Statistic Record Book.*

"THE SCHOOL REGISTER" records the scholar's name, age, date of entrance, and class entered, parent's name and occupation, date of progress through the classes and studies, time of *discharge*, and cause thereof.

"THE ROLL BOOK" records the name, residence, daily attendance, and cause of absence,—and should constantly present to view, the original entry of age, date of entrance, and class entered.

"THE CLASS BOOK" records the merit and demerit marks, and the lessons recited.

"THE WEEKLY REPORT BOOK" exhibits the daily number in attendance, weekly *average attendance*, number entered and discharged, and number on register at date.

"THE YEARLY STATISTIC RECORD" presents on a single page, a tabular view of the progress and operations of the school for the year; and shows in detail, the monthly and quarterly sum-totals of entrances, discharges, and promotions,—and the quarterly and annual register number, and average attendance. The blank forms for reporting, should be adapted to the school records.

Observe—that it is important, that all records, reports, and school documents, should be dated, and signed. Make it a standing rule, to fill *every blank*, especially those in the headings of records and reports; and distinctly endorse every paper, folding it in the most convenient form for filing; viz. if half a sheet of cap paper, fold it twice across the width of the paper; if a fourth of a sheet, fold it once across. The endorsements to be thus:—No. B. (for Boys,) G. (for Girls,) P. D. (Primary Department,) P. (Primary.)





Attendance of  
Crops for the month of  
18

| NAME. | Residence. | Where from | Entered<br>in Class. | Date of Entrance. | Class first entered | Entered this Class. |
|-------|------------|------------|----------------------|-------------------|---------------------|---------------------|
|       |            | *P. S.     |                      |                   |                     |                     |
|       |            | P. D.      |                      |                   |                     |                     |
|       |            | P.         |                      |                   |                     |                     |
|       |            | W.         |                      |                   |                     |                     |
|       |            | Pr.        |                      |                   |                     |                     |

\* P. S. Public School, P. D. Primary Department, P. Primary, W. Ward, Pr. Private.

The above occupies the left hand page, and the right hand page contains the columns for two months. So that the open book exhibits the entire quarter.

## WEEKLY ATTENDANCE.

|                  | <i>Morning.</i>                         | <i>Afternoon.</i> | <i>Total.</i> |
|------------------|---|-------------------|---------------|
| Monday, . . .    | :                                       | :                 | :             |
| Tuesday, . . .   | :                                       | :                 | :             |
| Wednesday, . . . | :                                       | :                 | :             |
| Thursday, . . .  | :                                       | :                 | :             |
| Friday, . . .    | :                                       | :                 | :             |
|                  | _____                                   | _____             | _____         |
|                  | _____                                   | _____             | _____         |
|                  | <b>Average attendance for the week,</b> |                   |               |

## WEEKLY REPORT OF SCHOOL NO. ( )

|  |    |
|--|----|
| Number on Record at the date of last Report, |    |
| Admitted since,.....                         |    |
| Discharged since last Report,.....           |    |
| Total on Register,.....                      |    |
| Average attendance for the week,.....        |    |
| New-York,                                    | 18 |
| of   |    |
| Teacher.                                     |    |

## WEEKLY REPORT OF PRIMARY SCHOOL, NO.

|  | BOYS. | GIRLS. |
|--|-------|--------|
| Number on Record at the date of last report.                                   |       |        |
| Admitted since,.....   |       |        |
| Discharged since last Report,.....   |       |        |
| Of whom were promoted to Public School<br>No. and to other Public Schools, --- |       |        |
| Average attendance for the week, _____   |       |        |
| Total on Register,.....  |       |        |
| of 18  |       |        |
| New-York,  |       |        |
| Teacher.   |       |        |

## WEEKLY ATTENDANCE.

|        | Monday.<br>A. M. P. M. | Tuesday.<br>A. M. P. M. | Wednesday.<br>A. M. P. M. | Thursday.<br>A. M. P. M. | Friday.<br>A. M. P. M. | TOTAL. | AVERAGE. |
|--------|------------------------|-------------------------|---------------------------|--------------------------|------------------------|--------|----------|
| 18     |                        |                         |                           |                          |                        |        |          |
| Boys.  |                        |                         |                           |                          |                        |        |          |
| Girls. |                        |                         |                           |                          |                        |        |          |

**Average attendance for the week ending**

# REPORT OF SECTION NO.

*To the Board of Trustees of the Public School Society.*

| Public Schools No.   | Primary Schools |                 | Total |        |
|--|-----------------|-----------------|-------|--------|
|  | Upper Schools.  | Primary Depart. |       |        |
|  | Boys.           | Girls.          | Boys. | Girls. |
| At the commencement of the quarter, there were on the Registers of the several schools,..... |                 |                 |       |        |
| During the quarter there have been admitted.....   |                 |                 |       |        |
| During the quarter there have been discharged.....   |                 |                 |       |        |
| Leaving on Register the                      of                      18                      |                 |                 |       |        |
| The average daily attendance has been.....   |                 |                 |       |        |
| The average of corresponding date last year.....   |                 |                 |       |        |
| Making an increase of.....   |                 |                 |       |        |
| "                      a decrease of.....  |                 |                 |       |        |

Boys' School, .....  
 Girls, " .....  
 Primary Department, .....  
 Primary School, .....

Since the last Report, the Schools have been visited

By \_\_\_\_\_

(other Trustees times Making total of visits Section No. further report, that

# CLASS BOOK.

**Names.**

| ADMISSIONS<br>INTO CLASSES.          |   |   |   |   |        |                     |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|--------|---------------------|--|--|--|--|--|--|
| 5                                    | 6 | 7 | 8 | 9 | Total. |                     |  |  |  |  |  |  |
| Jan.                                 |   |   |   |   |        | from Pub. Schools.  |  |  |  |  |  |  |
| Feb.                                 |   |   |   |   |        | from Prim. Schools. |  |  |  |  |  |  |
| March.                               |   |   |   |   |        | from Ward Schools.  |  |  |  |  |  |  |
| Quar.                                |   |   |   |   |        | from Priv. Schools. |  |  |  |  |  |  |
| Total.                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| April,                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| May,                                 |   |   |   |   |        |                     |  |  |  |  |  |  |
| June.                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Quar.                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Total.                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| July,                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Aug.                                 |   |   |   |   |        |                     |  |  |  |  |  |  |
| Sept.                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Quar.                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Total.                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| Oct.                                 |   |   |   |   |        |                     |  |  |  |  |  |  |
| Nov.                                 |   |   |   |   |        |                     |  |  |  |  |  |  |
| Dec.                                 |   |   |   |   |        |                     |  |  |  |  |  |  |
| Quar.                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| Total.                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| Yearly                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| Total.                               |   |   |   |   |        |                     |  |  |  |  |  |  |
| Reg. No                              |   |   |   |   |        |                     |  |  |  |  |  |  |
| Jan. 1.                              |   |   |   |   |        |                     |  |  |  |  |  |  |
| Total                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| under                                |   |   |   |   |        |                     |  |  |  |  |  |  |
| inst'n.                              |   |   |   |   |        |                     |  |  |  |  |  |  |
| DISCHARGES<br>FROM CLASSES.          |   |   |   |   |        | Where Gone          |  |  |  |  |  |  |
| 5                                    | 6 | 7 | 8 | 9 | Total. | Priv. Schools.      |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Pub. Schools.       |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Ward Schools.       |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Removed.            |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Irregular.          |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Unknown.            |  |  |  |  |  |  |
| FROM CLASSES TO THE VARIOUS CLASSES. |   |   |   |   |        |                     |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Reading Classes.    |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Compound Rules.     |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Rule of Three.      |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Writing on Paper.   |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Higher Geog.        |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Astronomy.          |  |  |  |  |  |  |
|                                      |   |   |   |   |        | History.            |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Grammar.            |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Composition.        |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Algebra.            |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Geometry.           |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Trigonometry.       |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Book Keeping.       |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Register No.        |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Average             |  |  |  |  |  |  |
|                                      |   |   |   |   |        | Attendance.         |  |  |  |  |  |  |
|                                      |   |   |   |   |        | REMARKS.            |  |  |  |  |  |  |

[illegible]

THE foregoing form of a Roll or Attendance Book, is designed for any class, and ruled in columns for every necessary purpose of record.

The first column is for the name.

The second is for the residence.

The third, is to show from what school the child has come. P. S. is put for Public School; P. D. for Primary Department; P. for Primary; W. for Ward, and Pr. for Private School.

The fourth, for the age when entered.

The fifth, for the date of entering the school.

The sixth, for the class first entered.

The seventh, for the date of entrance to the present class.

Then follow twenty-three columns, equal to the number of school-days for the longest months; each to be headed with the day of the month; (the month to be written above;) and the attendance to be marked daily, thus: \ for the morning session; / for the afternoon; and \ if late. The marks for each day will stand X < ; the half day, / \ . After the twenty-three columns, is a space, in which, to insert at the end of each month, the number of times each scholar has been absent, (or, if preferred, the number of times present.)

The above occupies the left hand page, and the right hand page contains the columns for additional two months. Thus, the open book exhibits the attendance of each pupil for an entire quarter. And, by noting the cause or reason of each one's leaving the class, and each promotion to a higher branch, we have, from month to month, all the data for filling up the Yearly Record, except the number on register and the average attendance,—which will be found in the Weekly Report Book.

As a matter of discipline, the calling of the roll each morning and afternoon, while all is perfect stillness, and each scholar answers to his name, is invaluable. In a school of 125, this may be done in two to four minutes. In a larger school, of two to four hundred, it will require more time, unless the several classes can be called at the same time.

In very large schools, where each one has his desk and number, the absentees may be marked, (if preferred,) by calling out the vacant numbers.

Dates in the columns to be by figures ; as  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,—for March and May, 1845.

The Yearly Statistic Record is important, as presenting in a condensed form all required information ; thus saving much time and labor, by affording facilities for rendering reports. If there be, but a careful entry at the end of each month, of a single line of figures ; (all of which, except the average and register numbers, may be taken directly from the Roll Books, if properly kept ;) and these be footed at the end of each quarter ; and the quarters be footed at the end of each year ; we shall have before us the entire history of operations, from which, to make out the quarterly and annual reports ;—as well as, the reports for each month, or any number of months, whether in the same or different years. By adding the register number at the beginning of the year, to the total of admissions in the year, we shall have the whole number under instruction during some part of the year : and, by the same process, may be determined, also, the results for periods of any number of months that may be required.

Ten to fifteen minutes is all the time that will be necessary to make out a report from this book, embracing any, or all of these particulars.

\* In the Upper Schools, where the changes of desks and classes are monthly, the teacher may find it more convenient, to appropriate a class book, for the purposes of a roll book.

## DIARY OF SCHOOL EXERCISES.

The following Form exhibits the arrangement of a Diary of Exercises—presenting the proportion of time given to the most important studies, the Blanks to be filled up by the Teachers—to embrace the following course of Studies as prescribed by the By-Laws.

Spelling, Writing, Reading, Definitions, and questions concerning the meaning of the author :—

Arithmetic, Geography, with the use of the Globes, Mapping and Drawing :—

The Elements of History, Astronomy, Mineralogy :—

English Grammar, Composition, and Declamation :—

Algebra, Geometry, Trigonometry, and Book-keeping :—

Natural History, Zoology, and Physiology :—

## ORDER OF EXERCISES, UPPER SCHOOLS.

| Time.                                | Period | MONDAY.  | TUESDAY.                                      | WEDNESDAY.           | THURSDAY.                                     | FRIDAY.              |
|--------------------------------------|--------|--|---|----------------------|---|----------------------|
| 9 to 5 past                          | 5 min. | Read and prepare for the exercises                 |   |                      |   |                      |
| 9-5 to 10.                           | 55     | GEOGRAPHY  | ASTRONOMY<br>& LOWER<br>GEOGRAPHY<br>CLASSES. | GEOGRAPHY            | ASTRONOMY<br>& LOWER<br>GEOGRAPHY<br>CLASSES. | GEOGRAPHY            |
| 10 to 10 $\frac{1}{2}$               | 45     | ARITHME-<br>TIC.                                   | ARITHME-<br>TIC.                              | ARITHME-<br>TIC.     | ARITHME-<br>TIC.                              | ARITHME-<br>TIC.     |
| 10 $\frac{1}{2}$ to 11               | 15     | Recess : take attendance and ventilate thoroughly. |   |                      |   |                      |
| 11 to 11 $\frac{1}{2}$               | 45     | DICTATION.   | DICTATION.                                    | DICTATION.           | DICTATION.                                    | DICTATION.           |
| 11 $\frac{1}{2}$ to 12 $\frac{1}{2}$ | 45     | WRITING<br>ON PAPER.                               | COMPOSI-<br>TION.                             | WRITING<br>ON PAPER. | COMPOSI-<br>TION.                             | WRITING<br>ON PAPER. |
| 12 $\frac{1}{2}$ to 1                | 30     | Recess: Dinner.                                    |   |                      |   |                      |
| 1 to 2                               | 60     | GRAMMAR.   | DRAWING.                                      | GRAMMAR.             | DRAWING.                                      | GRAMMAR.             |
| 2 to 2 $\frac{1}{2}$                 |        | READING.   | READING &<br>HISTORY.                         | READING.             | READING &<br>HISTORY.                         | READING.             |
| 2 $\frac{1}{2}$ to 2                 | 15     | Absentees sent for : closing school.               |   |                      |   |                      |

Blanks, for particular arrangement of Classes, to be filled up by the Teacher.



## DIARY OF EXERCISES.

## FOR PRIMARY SCHOOLS.

---

|            |   |
|------------|---|
| at 9 to 9½ | Read the Scriptures, not to exceed 5 minutes.<br>Then other opening exercises, and Oral Instruction collectively. |
| 9½ to 10   | Read and spell in Drafts.   |
| 10 to 10½  | Dictation (for Writing on Slates.)  |
| 10½ to 11  | Recess and Oral Instruction.  |
| 11 to 11½  | Read and Spell in Drafts.   |
| 11½ to 12  | Writing Copies. Drawing, &c.  |
| 12 to 12½  | Recess for Lunch.   |
| 12½ to 1   | Oral Instruction in Tables and Common things.   |
| 1 to 1½    | Read and Spell in Drafts.   |
| 1½ to 2    | Dictation for Writing on Slates.  |
| 2 to 2½    | Read and Spell in Drafts.   |
| 2½ to 3    | Dictation.  |

IN DICTATION, the First Class practice on the letters under a Class Monitor. The 2d and 3d Class practice from the Dictation boards, the word to be distinctly given out and spelled, by the one in charge of this exercise; the children all respond, then write.

For the 4th 5th and 6th Classes the Dictation Book is to be used, or otherwise, with definitions, one at the head of each Class only to respond. Five words to be thus written, then inspect, clean off slates, and so continue the exercise.

It is desirable that the reading drafts should not consist of more than six, and so arranged and conducted that all shall have their eyes constantly on the Lesson card, ready to correct every mistake of letter word or pronunciation.

The exercise of dictation, and also that of reading in drafts should be conducted by the Teacher and Assistants alternately. While the one is thus in charge of the school, the other will be employed with a large class; but under such arrangements that each class in turn shall come under the immediate instruction of the Teacher, as well as the Assistant.

*New-York, February, 1850.*

**The Teacher will have the Library Books called in, and the Blanks filled in readiness for the Examination, and one side of the slate the Scholar's Writing; on the other Geometrical Drawings.**

| <i>Public School No.</i>       | <i>Reports that the Number of Scholars</i> |
|--------------------------------|--|
| <i>Yearly Average,.....</i>    | <i>under and in the Class 6</i>            |
| <i>Present at Examination,</i> | <i>" " 7</i>                               |
|                                | <i>" " 8</i>                               |
|                                | <i>" " 9</i>                               |
|                                | <i>Register total,.....</i>                |
| <b>New-York,</b>               | <b>185</b>                                 |
|                                | <b>TEACHER.</b>                            |

|                                 | Names of the Scholars that you offer for examination in the 8th Class. | Do. do. 9th Class | Check opposite the name in the column in which the pupil is examined. |
|---------------------------------|--|-------------------|---|
| Date of entering School.        |  |                   |   |
| Class entered.                  |  |                   |   |
| From what School.               |  |                   |   |
| Date of entering the Class.     |  |                   |   |
| Date of entering Rule of Three. |  |                   |   |
| Date of entering Grammar.       |  |                   |   |
| Date of entering Geography.     |  |                   |   |
| Date of entering Astronomy.     |  |                   |   |
| Date of entering Algebra.       |  |                   |   |
| Date of entering Geometry.      |  |                   |   |
| Date of entering Trigonometry.  |  |                   |   |
| Date of entering History.       |  |                   |   |
| Date of entering Book-keeping.  |  |                   |   |

For filling the column "WHERE FROM," see form for Primary Schools on the next page.

**The Teacher will have the Blanks filled in readiness for the Examination, and one side of the Slates with the Scholar's Writing.**

| Public School No.          |     | Reports that the Number of Scholars |  |
|----------------------------|-----|-------------------------------------|--|
| Yearly Average, .....      |     | under and in the Class 6            |  |
| Present at Examination.... |     | " " 7                               |  |
|                            |     | " " 8                               |  |
|                            |     | " " 9                               |  |
|                            |     | Register total, .....               |  |
| New-York,                  | 185 | TEACHER.                            |  |

| Names of the Scholars in the 6th and 7th Classes that you offer for Examination. | AGE. | WHERE FROM | Class entered with date, and date of promotion—in figures thus $\frac{5}{4}$ is May 1844. |         |
|--|------|------------|---|---------|
|  |      |            |   |         |
|  |      |            | Class 6   | Class 7 |

*Primary School No.*      *Reports, that the Number of Scholars*

It is required that the column "From What School," have the entries made in the following manner:—The letter in Roman Text, thus;—Pr. for private; F. first Sch.; Rd. for re-entered; P. 4, for primary 4; P. D. 5, for Primary Department 5; P. S. 7, for Public School 7; W. for Ward School; N. k. for not known.

| Names of the Scholars that you offer for Examination. | The Present Age. | Where from, (thus,) Pr.<br>F. P. P. D. 4<br>P. D. 5 | Should be Roman text. | Class first entered with date, and date of promotion through Classes—in figures thus $\frac{F}{P}$ is May, 1843. |
|---|------------------|---|-----------------------|--|
|   |                  |   |                       | Class1 Class2 Class3 Class4 Class5 Class6  |
|   |                  |   |                       |  |

The following are forms of the WEEKLY DIARIES, to be sent home for examination by the parents—to be returned, signed by one of them.

~~~~~  
 "KNOWLEDGE IS THE TREASURE OF THE MIND."  
 ~~~~~

|   |  |
|---|--|
| During the past week there were, .....<br>At which " was present, .....<br>" " absent, .....<br>" " late, .....<br>Having lost thereby during the week, .....<br>During the time present made, .....<br>Of which were very good, .....<br>" pretty good, .....<br>" bad, .....<br>His general deportment was<br>Examined<br>— Dept. P. S. No. — | School Sessions,<br><br>Minutes,<br>Hours,<br>Recitations,<br><br><br><br><br><br><br><br><br><br>TEACHER. |
|---|--|

PUBLIC SCHOOL NO. (—)

*Report of* \_\_\_\_\_ *from* \_\_\_\_\_ *to* \_\_\_\_\_

|                                 |        |                             |        |
|---------------------------------|--------|-----------------------------|--------|
| Has failed in lessons           | times. | Has been late at school     | times. |
| Has been noticed for misconduct | times. | Has been absent from school | times. |

*One of the parents will please sign this, }  
 and return it on the next school day. }*

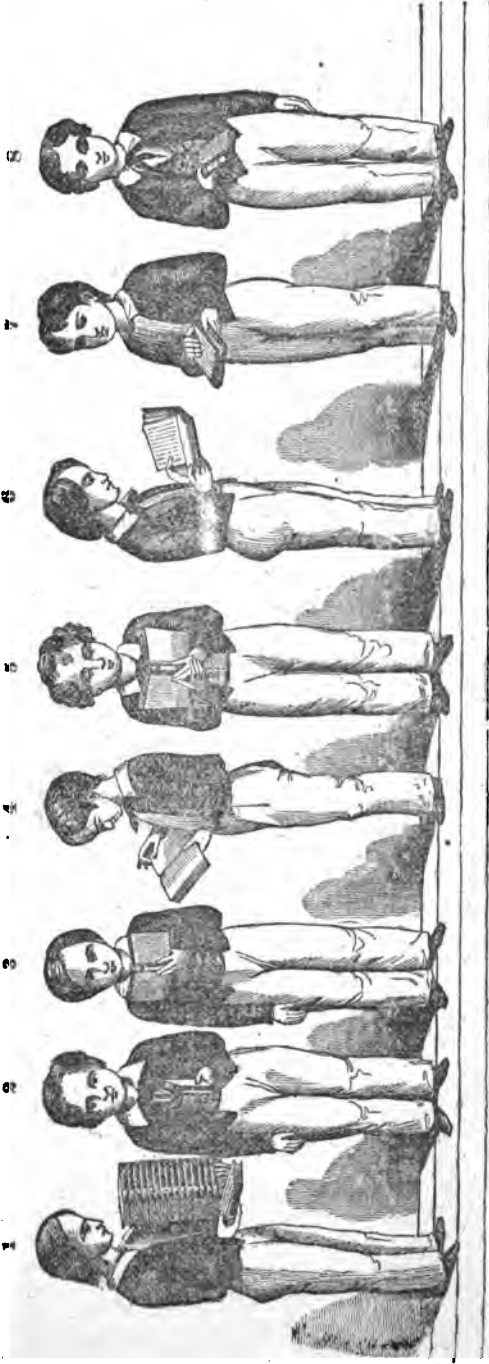
TEACHER.

| EXAMINED,  |             |          |             |            |          |              |          |           |            |          | REMARKS           |
|------------|-------------|----------|-------------|------------|----------|--------------|----------|-----------|------------|----------|-------------------|
|            | Deportment. | Writing. | Arithmetic. | Geography. | Grammar. | Composition. | Reading. | Spelling. | Astronomy. | Drawing. |                   |
| Monday,    |             |          |             |            |          |              |          |           |            |          | 1 Perfect Lesson. |
| Tuesday,   |             |          |             |            |          |              |          |           |            |          | 2 Pretty Good.    |
| Wednesday, |             |          |             |            |          |              |          |           |            |          | 3 Indifferent.    |
| Thursday,  |             |          |             |            |          |              |          |           |            |          | 4 Imperfect.      |
| Friday,    |             |          |             |            |          |              |          |           |            |          | X Failure.        |



# PUBLIC SCHOOL YEARLY STATISTIC RECORD.

| ADMISSIONS<br>INTO CLASSES. |      |        |              |                   |              |       |      |       |              | DISCHARGES<br>FROM CLASSES. |      |      |              |               |                 |                     |                |               |               | Promotions to the different Studies. |            |          |   |   |   |   |        |                |                   | REMARKS.     |            |          |          |              |          |           |               |               |              |                     |  |  |
|-----------------------------|------|--------|--------------|-------------------|--------------|-------|------|-------|--------------|-----------------------------|------|------|--------------|---------------|-----------------|---------------------|----------------|---------------|---------------|--------------------------------------|------------|----------|---|---|---|---|--------|----------------|-------------------|--------------|------------|----------|----------|--------------|----------|-----------|---------------|---------------|--------------|---------------------|--|--|
| Where Gone                  |      |        |              |                   |              |       |      |       |              | Reading Classes.            |      |      |              |               |                 |                     |                |               |               | Compound Rules.                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
| Jan.                        | Feb. | March. | Quar. Total. | April, May, June. | Quar. Total. | July. | Aug. | Sept. | Quar. Total. | Oct.                        | Nov. | Dec. | Quar. Total. | Yearly Total. | Reg. No Jan. 1. | Total under inst'n. | Priv. Schools. | Pub. Schools. | Ward Schools. | Removed.                             | Irregular. | Unknown. | 6 | 7 | 8 | 9 | Total. | Rule of Three. | Writing on Paper. | Higher Geog. | Astronomy. | History. | Grammar. | Composition. | Algebra. | Geometry. | Trigonometry. | Book keeping. | Register No. | Average Attendance. |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |
|                             |      |        |              |                   |              |       |      |       |              |                             |      |      |              |               |                 |                     |                |               |               |                                      |            |          |   |   |   |   |        |                |                   |              |            |          |          |              |          |           |               |               |              |                     |  |  |



## BOOK MANUAL.

THE pupil should stand erect,—his heels near together,—toes turned out,—and his eyes directed to the face of the person speaking to him.

Fig. 1. Represents the Book-Monitor with a pile of books across his left arm, with the backs from him, and with the top of the page to the right hand.

Fig. 2. The Book Monitor, with the right hand hands the book to the Pupil; who receives it in his right hand, with the back of the book to the left; and then passes it into the left hand, where it is held with the back upwards, and with the thumb extended at an angle of forty-five degrees with the edge of the book, (as in fig 2), until a further order is given.

Fig. 3. When the page is given out, the book is turned by the thumb on the side; and, while held with both hands, is turned with the back downwards, with the thumbs meeting across the leaves, at a point judged to be

nearest the place to be found. On opening the book, the left hand slides down to the bottom, and thence to the middle, where the thumb and little finger are made to press on the two opposite pages. If the pupil should have thus lit upon the page sought for, he lets fall the right hand by the side, and his position is that of fig. 3.

Fig. 4. But, if he has opened short of the page required, the thumb of the right hand is to be placed near the upper corner of the page, as seen in fig. 4; while the forefinger lifts the leaves to bring into view the number of the page. If he finds that he has not raised enough, the forefinger and thumb hold those already raised, while the second finger lifts the leaves, and brings them within the grasp of the thumb and finger. When the page required is found, all the fingers are to be passed under the leaves, and the whole turned at once. Should the Pupil, on the contrary, have opened too far, and be obliged to turn back, he places the right thumb, in like manner, on the left hand page, and the leaves are lifted as before described.

Fig. 5. Should the book be old, or so large as to be wearisome to hold, the right hand may sustain the left, as seen in fig. 5.

Fig. 6, 7. While reading, as the eye rises to the top of the right hand page, the right hand is brought to the position seen in fig. 4; and, with the forefinger under the leaf, the hand is slid down to the lower corner, and retained there during the reading of this page, as seen in fig. 6. This also is the position in which the book is to be held when about to be closed; in doing which, the left hand, being carried up to the side, supports the book firmly and unmoved, while the right hand turns the part it supports over on the left thumb, as seen in fig. 7. The thumb will then be drawn out from between the leaves, and placed on the cover; when the right hand will fall by the side, as seen in fig. 2.

Fig. 8. But, if the reading has ended, the right hand retains the book, and the left hand falls by the side, as seen in fig. 8. The book will now be in a position to be handed to the Book-Monitor; who receives it in his right hand, and places it on his left arm, with the back towards his body, the books are now in the most suitable situation for being passed to the shelves or drawers, where, without being crowded, they should be placed with uniformity and care.

In conclusion, it may be proper to remark, that however trivial these minute directions may appear to some minds, it will be found on experience, that books thus treated, may be made to last double the time that they will do, under the usual management in schools. Nor is this attainment of a correct and graceful mode of handling a book, the only benefit received by the pupil. The use of this manual is calculated to beget a love of *order* and *propriety*; and disposes him more readily to adopt the habit generally, of doing things in a methodical and systematic manner.



## ARITHMETICAL KEY.

---

Arithmetic, is the art of computing by numbers. Its five principal rules are, Numeration, Addition, Subtraction, Multiplication and Division. Numeration is the art of expressing numbers by words or figures.

One, Two Three, Four, Five, Six, Seven Eight, Nine, Cipher.

The figures are, 1, 2, 3 4, 5, 6, 7, 8, 9, 0.

The value of figures depends on the place in which they stand when written together, thus :

| 9                     | 8                 | 7         | 6                      | 5                  | 4          | 3         | 2     | 1      |
|-----------------------|-------------------|-----------|------------------------|--------------------|------------|-----------|-------|--------|
| Hundreds of Millions. | Tens of Millions. | Millions. | Hundreds of Thousands. | Tens of Thousands. | Thousands. | Hundreds. | Tens. | Units. |

In the above, number 1 in the first place denotes one unit, or one ; 2, in the second place denotes 2 tens, or twenty ; 3, in the third place denotes 3 hundred, &c.

To read any number expressed in figures—first separate the numbers into periods of three figures each, from the right to the left, and call the first three, units ; the second three, thousands ; the third three, millions—then read each division as if it stood alone.

The teacher will now exercise the scholar, first in writing numbers in words, and then in figures.

## ADDITION,

Teaches to find the amount of several different numbers—as two, three and five, make ten. It is performed thus; write units under units, tens under tens, &c. Then add upwards the units, and find how many tens are contained in their sum; write down what remains more than those tens, and carry as many to the next column as there are tens in the first. Add up the second column with the number carried, as before, and proceed in this way, till the whole is finished, writing down the total amount of the last column.

The work may be proved by beginning at the top, and adding all the columns of numbers, *downwards*, and if the sum is the same as found by adding *upwards*, the work is right.

**OBSERVE.** Before the scholar finishes addition, he should be taught to add rapidly, merely naming the results, thus :

|            |   |
|------------|---|
| 263        | 7-13-18-22-23-26, set down 6 and carry 2.     |
| 41         | 2-8-15-24-32-36-42, set down 2 and carry 4.   |
| 3984       | 4-12-21-23,     •     set down 3 and carry 2. |
| 95         | 2-6-9, set down 9.                            |
| 4876       |   |
| 67         |   |
| <hr/> 9326 |   |

The following exercises are to be dictated to the pupils, each having a slate. Sometimes the exercise may be written on the Black Board, when each pupil should successively take part in performing the operation audibly. No other exercises should be given them, till they have practised all those contained in the Arithmetical Key.

## ADDITION.

| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 13   | 14    | 15     | 16      |
|---|----|----|----|----|----|----|----|----|----|----|-----|------|-------|--------|---------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 123  | 1234  | 12345  | 123456  |
| 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 | 1107 | 11106 | 111105 | 1111104 |

| 17       | 18        | 19        | 20  | 21   | 22    | 23     | 24      |
|----------|-----------|-----------|-----|------|-------|--------|---------|
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 1234567  | 12345678  | 123456789 | 98  | 987  | 9876  | 98765  | 987654  |
| 11111103 | 111111102 | 111111101 | 882 | 8883 | 88884 | 888885 | 8888886 |

| 25       | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35  | 36   | 37    | 38       |
|----------|----|----|----|----|----|----|----|----|----|-----|------|-------|----------|
| 9876543  | 9  | 8  | 7  | 6  | 5  | 4  | 3  | 2  | 1  | 98  | 765  | 4321  | 1234567  |
| 9876543  | 1  | 2  | 3  | 4  | 9  | 6  | 7  | 8  | 9  | 12  | 349  | 6789  | 9876943  |
| 9876543  | 8  | 7  | 6  | 5  | 4  | 3  | 2  | 1  | 2  | 87  | 654  | 3212  | 2123456  |
| 9876543  | 2  | 3  | 4  | 9  | 6  | 8  | 9  | 4  | 3  | 23  | 496  | 8943  | 3498694  |
| 9876543  | 7  | 6  | 5  | 3  | 3  | 2  | 8  | 5  | 7  | 76  | 533  | 2857  | 7582335  |
| 9876543  | 3  | 4  | 8  | 2  | 7  | 9  | 1  | 6  | 4  | 34  | 827  | 9164  | 4619728  |
| 9876543  | 6  | 5  | 2  | 8  | 2  | 1  | 6  | 7  | 5  | 65  | 282  | 1675  | 5761282  |
| 9876543  | 4  | 1  | 9  | 1  | 8  | 5  | 4  | 3  | 6  | 41  | 918  | 5436  | 6345819  |
| 9876543  | 5  | 9  | 1  | 7  | 1  | 7  | 5  | 9  | 8  | 59  | 171  | 7598  | 8957171  |
| 88888887 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 495 | 4995 | 49995 | 49999995 |

## ADDITION.

## SUBTRACTION,

| 39        | 40    | 43  |
|-----------|-------|-----|
| 217       | 6745  | 789 |
| 548       | 204   | 897 |
| 406       | 3426  | 987 |
| 59        | 778   | 798 |
| 235       | 5883  | 879 |
| 24        | 902   | 997 |
| 03        | 4359  | 879 |
| 102       | 260   | 987 |
| 81        | 8597  | 978 |
|           |       | 797 |
| 1675      | 31154 | 899 |
|           |       | 777 |
|           |       | 999 |
|           |       | 878 |
|           |       | 987 |
| 75432829  |       | 789 |
| 8740587   |       | 888 |
| 1053      |       | 977 |
| 465344    |       | 798 |
| 35        |       | 879 |
| 10253206  |       | 987 |
| 1092      |       | 878 |
| 78        |       | 787 |
| 12876401  |       | 798 |
| 107770625 | 21309 |     |

Teaches to take one number from another to find what number is left. It is performed thus :—Place the smaller number under the larger; units under units, tens under tens, &c. Begin with the units, and take the lower figure from the upper, and place their difference immediately under the units. If the upper figure be less than the lower figure, add ten to the upper one, and place the difference between them under the units as before, and carry one to the next figure at the bottom, and proceed thus till it is finished.

The upper line is called the minuend, the lower the subtrahend, and the number obtained the difference or remainder.

The sum may be proved by adding the remainder to the subtrahend, and if the sum be like the minuend, the work is right.

## SUBTRACTION.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |

| 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 12 | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 5  |
| 10 | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  |
| 2  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 4  | 5  |

## SUBTRACTION.

| 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 7  | 8  | 9  | 10 | 11 | 12 | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 7  | 8  | 9  | 10 | 11 | 12 | 8  | 9  | 10 |
| 2  | 3  | 4  | 5  | 9  | 7  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 0  | 1  | 2  | 3  | 4  | 5  | 0  | 1  | 2  |
| 5  | 5  | 5  | 5  | 5  | 5  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 7  | 7  | 7  | 7  | 7  | 8  | 8  | 8  |

| 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 11 | 12 | 9  | 10 | 11 | 12 | 10 | 11 | 12 | 25 | 35 | 75 | 86 | 30 | 61 | 81 | 72 | 90 | 54 | 65 | 75 | 87 |
| 3  | 4  | 0  | 1  | 2  | 3  | 0  | 1  | 2  | 10 | 25 | 50 | 40 | 25 | 56 | 76 | 63 | 86 | 48 | 58 | 67 | 78 |
| 8  | 8  | 9  | 9  | 9  | 9  | 10 | 10 | 10 | 15 | 10 | 25 | 46 | 5  | 5  | 5  | 6  | 4  | 6  | 7  | 8  | 9  |

| 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 |
|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 98 | 97 | 92 | 93 | 90 | 78 | 87 | 98 | 99 | 89 | 76 | 59  | 49  | 94  | 100 | 102 | 109 | 120 | 428 |
| 79 | 85 | 78 | 77 | 64 | 25 | 26 | 33 | 46 | 78 | 62 | 43  | 47  | 13  | 50  | 50  | 94  | 83  | 220 |
| 19 | 12 | 14 | 16 | 26 | 53 | 61 | 65 | 53 | 11 | 14 | 16  | 2   | 81  | 50  | 52  | 15  | 37  | 208 |

| 108 | 109  | 110   | 111       |
|-----|------|-------|-----------|
| 975 | 7864 | 98705 | 843021607 |
| 899 | 6008 | 80978 | 798510479 |
| 76  | 1856 | 17727 | 44511128  |

## MULTIPLICATION,

Is a short way of performing Addition. The multiplier is the number to be multiplied by. The multiplicand is the number to be multiplied. And the number produced is *the product*. It is performed thus:—Place the larger number uppermost, and then set the multiplier under it, units under units, &c.; and multiply each figure in the multiplicand by the multiplier, beginning at the units place, and carry for ten as in addition. If the multiplier consists of more places than one, multiply in the same manner by the tens, hundreds, &c. in the multiplier, observing to put the first figure of each product, directly under the figure by which you multiply, then add all these products together, and their sum will be the required product.

The work may be proved by multiplying the former multiplier by the multiplicand; if the product agree with the first, the work will be right.

## MULTIPLICATION.

| 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 2 | 2 | 2 | 2 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 3  | 6  | 9  | 12 | 15 | 18 | 21 | 24 | 27 | 30 |

| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 3  | 3  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  |
| 33 | 36 | 4  | 8  | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 | 5  | 10 | 15 | 20 | 25 | 30 | 35 | 40 |

| 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  |
| 5  | 5  | 5  | 5  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 7  | 7  | 7  | 7  | 7  | 7  |
| 45 | 50 | 55 | 60 | 6  | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 7  | 14 | 21 | 28 | 35 | 42 |

MULTIPLICATION.

| 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 7  | 8  | 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 1  | 2  | 3  | 4  |
| 7  | 7  | 7  | 7  | 7  | 7  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 9  | 9  | 9  | 9  |
| 49 | 56 | 63 | 70 | 77 | 84 | 8  | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 | 9  | 18 | 27 | 36 |

| 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96  | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 |
|----|----|----|----|----|----|----|-----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12  | 1  | 2  | 3  | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
| 9  | 9  | 9  | 9  | 9  | 9  | 9  | 9   | 10 | 10 | 10 | 10  | 10  | 10  | 10  | 10  | 10  | 10  | 10  | 10  |
| 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 | 10 | 20 | 30 | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 110 | 120 |

| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
| 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  |
| 11  | 22  | 33  | 44  | 55  | 66  | 77  | 88  | 99  | 110 | 121 | 132 | 12  | 24  | 36  | 48  | 60  | 72  | 84  | 96  |

| 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142  | 143  | 144  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 9   | 10  | 11  | 12  | 20  | 25  | 25  | 25  | 20  | 25  | 44  | 55  | 66  | 177  | 185  | 196  |
| 12  | 12  | 12  | 12  | 2   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10   | 8    | 9    |
| 108 | 120 | 132 | 144 | 40  | 50  | 75  | 100 | 100 | 150 | 308 | 440 | 594 | 1770 | 1480 | 1764 |

| 145  | 146  | 147  | 148  | 149  | 150 | 151  | 152  | 153  | 154  | 155  | 156   |
|------|------|------|------|------|-----|------|------|------|------|------|-------|
| 120  | 121  | 131  | 142  | 153  | 30  | 60   | 31   | 42   | 55   | 48   | 98    |
| 10   | 11   | 12   | 12   | 12   | 20  | 30   | 60   | 70   | 100  | 200  | 1000  |
| 1200 | 1331 | 1571 | 1704 | 1836 | 600 | 1800 | 1860 | 2940 | 5500 | 9600 | 98000 |

| 157   | 158   | 159    | 160    | 161    |
|-------|-------|--------|--------|--------|
| 120   | 304   | 778    | 888    | 999    |
| 200   | 300   | 800    | 900    | 900    |
| 24000 | 91200 | 622400 | 799200 | 899100 |

## MULTIPLICATION.

| 163 | 168  | 164  | 165  | 166  | 167  | 168  | 169    | 170    | 171    |
|-----|------|------|------|------|------|------|--------|--------|--------|
| 45  | 63   | 74   | 91   | 88   | 86   | 99   | 405    | 530    | 940    |
| 22  | 42   | 51   | 63   | 75   | 88   | 99   | 302    | 405    | 608    |
| 90  | 126  | 74   | 273  | 440  | 688  | 891  | 810    | 2650   | 7520   |
| 90  | 252  | 370  | 546  | 616  | 688  | 891  | 1215   | 2120   | 5640   |
| 990 | 2646 | 3774 | 5733 | 6600 | 7568 | 9801 | 122310 | 214650 | 571520 |

| 173          | 173     | 174       | 175          |
|--------------|---------|-----------|--------------|
| 870000       | 872     | 75432     | 860405       |
| 300020       | 9084    | 5420      | 607002       |
| 17400000     | 3488    | 1508640   | 1720810      |
| 2610000      | 6976    | 301728    | 6022835      |
|              | 7848    | 377160    | 5162430      |
| 261017400000 | 7921248 | 408841440 | 522267555810 |

## DIVISION,

Is a short way of performing Subtraction, and shows how many times one number is contained in another. The number we divide by, is called *the divisor*, the one which we divide, *the dividend*, and the number of times the dividend contains the divisor, is called *the quotient*. When the divisor is less than 13, we use *short division*, which is thus performed : find how many times the divisor is contained in the first figure or figures of the dividend, and place the result immediately under that figure, and what remains suppose to be placed directly before the next figure of the dividend, and then inquire how many times these figures will contain the divisor, and place the result as before. Proceed in the same manner till it is finished.

If the divisor exceeds 12, the operation is performed by Long Division, thus : find how many times the divisor is contained in the smallest possible number of figures at the left of the dividend, and place the quotient at the right of the dividend, then multiply the



divisor by the quotient, and subtract the product from the figures divided. Bring down the next figure of the dividend to the right of the remainder, divide as before, putting the quotient to the right of the other, &c. The work may be proved by multiplying the divisor by the quotient, adding the remainder, if any; the product will be the same as the dividend.

### DIVISION.

| 1   | 2   | 3   | 4   | 5   | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| 1)1 | 2)2 | 2)4 | 2)6 | 2)8 | 2)10 | 2)12 | 2)14 | 2)16 | 2)18 | 2)20 | 2)22 |
| 1   | 1   | 2   | 3   | 4   | 5    | 6    | 7    | 8    | 9    | 10   | 11   |

| 13   | 14  | 15  | 16  | 17  | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
|------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| 2)24 | 3)0 | 3)3 | 3)6 | 3)9 | 3)12 | 3)15 | 3)18 | 3)21 | 3)24 | 3)27 | 3)30 |
| 12   | 0   | 1   | 2   | 3   | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 25   | 26   | 27  | 28  | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|------|------|-----|-----|------|------|------|------|------|------|------|------|
| 3)33 | 3)36 | 4)4 | 4)8 | 4)12 | 4)16 | 4)20 | 4)24 | 4)28 | 4)32 | 4)36 | 4)40 |
| 11   | 12   | 1   | 2   | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 37   | 38   | 39  | 40   | 41   | 42   | 43   | 44   | 45   | 46   | 47   | 48   |
|------|------|-----|------|------|------|------|------|------|------|------|------|
| 4)44 | 4)48 | 5)5 | 5)10 | 5)15 | 5)20 | 5)25 | 5)30 | 5)35 | 5)40 | 5)45 | 5)50 |
| 11   | 12   | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 49   | 50   | 51  | 52   | 53   | 54   | 55   | 56   | 57   | 58   | 59   | 60   |
|------|------|-----|------|------|------|------|------|------|------|------|------|
| 5)55 | 5)60 | 6)6 | 6)12 | 6)18 | 6)24 | 6)30 | 6)36 | 6)42 | 6)48 | 6)54 | 6)60 |
| 11   | 12   | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 61   | 62   | 63  | 64   | 65   | 66   | 67   | 68   | 69   | 70   | 71   | 72   |
|------|------|-----|------|------|------|------|------|------|------|------|------|
| 6)66 | 6)72 | 7)7 | 7)14 | 7)21 | 7)28 | 7)35 | 7)42 | 7)49 | 7)56 | 7)63 | 7)70 |
| 11   | 12   | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

## DIVISION.

| 73   | 74   | 75  | 76   | 77   | 78   | 79   | 80   | 81   | 82   | 83   | 84   |
|------|------|-----|------|------|------|------|------|------|------|------|------|
| 7)77 | 7)84 | 8)8 | 8)16 | 8)24 | 8)32 | 8)40 | 8)48 | 8)56 | 8)64 | 8)72 | 8)80 |
| 11   | 12   | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 85   | 86   | 87  | 88   | 89   | 90   | 91   | 92   | 93   | 94   | 95   | 96   |
|------|------|-----|------|------|------|------|------|------|------|------|------|
| 8)88 | 8)96 | 9)9 | 9)18 | 9)27 | 9)36 | 9)45 | 9)54 | 9)63 | 9)72 | 9)81 | 9)90 |
| 11   | 12   | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |

| 97   | 98    | 99    | 100   | 101   | 102   | 103   | 104   | 105   | 106   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9)99 | 9)108 | 10)10 | 10)20 | 10)30 | 10)40 | 10)50 | 10)60 | 10)70 | 10)80 |
| 11   | 12    | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |

| 107   | 108    | 109    | 110    | 111   | 112   | 113   | 114   | 115   |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|
| 10)90 | 10)100 | 10)110 | 10)120 | 11)11 | 11)22 | 11)33 | 11)44 | 11)55 |
| 9     | 10     | 11     | 12     | 1     | 2     | 3     | 4     | 5     |

| 116   | 117   | 118   | 119   | 120    | 121    | 122    | 123   | 124   |
|-------|-------|-------|-------|--------|--------|--------|-------|-------|
| 11)66 | 11)77 | 11)88 | 11)99 | 11)110 | 11)121 | 11)132 | 12)12 | 12)24 |
| 6     | 7     | 8     | 9     | 10     | 11     | 12     | 1     | 2     |

| 125   | 126   | 127   | 128   | 129   | 130   | 131    | 132    | 133    |
|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 12)36 | 12)48 | 12)60 | 12)72 | 12)84 | 12)96 | 12)108 | 12)120 | 12)132 |
| 3     | 4     | 5     | 6     | 7     | 8     | 9      | 10     | 11     |

| 134    | 135 | 136 | 137 | 138  | 139  | 140 | 141 | 142  | 143  | 144 |
|--------|-----|-----|-----|------|------|-----|-----|------|------|-----|
| 12)144 | 2)5 | 2)7 | 2)9 | 2)11 | 2)13 | 3)5 | 3)7 | 3)11 | 3)13 | 4)5 |
| 12     | 2½  | 3½  | 4½  | 5½   | 6½   | 1½  | 2½  | 3½   | 4½   | 1½  |

## DIVISION.

| 145              | 146              | 147               | 148               | 149               | 150              | 151              | 152              | 153              | 154               | 155               | 156               |
|------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|
| $\overline{4)7}$ | $\overline{4)9}$ | $\overline{4)10}$ | $\overline{4)13}$ | $\overline{4)15}$ | $\overline{5)6}$ | $\overline{5)7}$ | $\overline{5)8}$ | $\overline{5)9}$ | $\overline{5)11}$ | $\overline{5)12}$ | $\overline{5)13}$ |
| $1\frac{3}{4}$   | $2\frac{1}{4}$   | $2\frac{1}{2}$    | $3\frac{1}{4}$    | $3\frac{3}{4}$    | $1\frac{1}{5}$   | $1\frac{1}{5}$   | $1\frac{1}{5}$   | $1\frac{1}{5}$   | $2\frac{1}{5}$    | $2\frac{3}{5}$    | $2\frac{3}{5}$    |

| 157              | 158              | 159              | 160              | 161               | 162               | 163               | 164               | 165              | 166               | 167               | 168               |
|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| $\overline{6)7}$ | $\overline{6)8}$ | $\overline{6)8}$ | $\overline{6)9}$ | $\overline{6)10}$ | $\overline{6)11}$ | $\overline{6)13}$ | $\overline{6)14}$ | $\overline{7)8}$ | $\overline{7)10}$ | $\overline{7)11}$ | $\overline{7)12}$ |
| $1\frac{1}{6}$   | $1\frac{2}{3}$   | $1\frac{1}{3}$   | $1\frac{1}{2}$   | $1\frac{5}{6}$    | $1\frac{5}{6}$    | $2\frac{1}{6}$    | $2\frac{1}{6}$    | $1\frac{1}{7}$   | $1\frac{2}{7}$    | $1\frac{4}{7}$    | $1\frac{4}{7}$    |

| 169               | 170              | 171               | 172               | 173               | 174               | 175               | 176               | 177               | 178                | 179                |
|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| $\overline{7)13}$ | $\overline{8)9}$ | $\overline{8)10}$ | $\overline{8)11}$ | $\overline{8)13}$ | $\overline{9)10}$ | $\overline{9)11}$ | $\overline{9)12}$ | $\overline{9)13}$ | $\overline{10)11}$ | $\overline{10)12}$ |
| $1\frac{6}{7}$    | $1\frac{1}{8}$   | $1\frac{1}{4}$    | $1\frac{3}{8}$    | $1\frac{5}{8}$    | $1\frac{1}{9}$    | $1\frac{2}{9}$    | $1\frac{1}{3}$    | $1\frac{1}{6}$    | $1\frac{1}{10}$    | $1\frac{2}{5}$     |

| 180                | 181                | 182                | 183                | 184                | 185                | 186                | 187                |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| $\overline{10)13}$ | $\overline{10)14}$ | $\overline{10)15}$ | $\overline{11)12}$ | $\overline{11)13}$ | $\overline{11)14}$ | $\overline{11)15}$ | $\overline{11)16}$ |
| $1\frac{3}{10}$    | $1\frac{1}{5}$     | $1\frac{1}{2}$     | $1\frac{1}{11}$    | $1\frac{2}{11}$    | $1\frac{2}{11}$    | $1\frac{4}{11}$    | $1\frac{5}{11}$    |

| 188                | 189                | 190                | 191                | 192                | 193                | 194                | 195                |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| $\overline{11)17}$ | $\overline{12)13}$ | $\overline{12)14}$ | $\overline{12)15}$ | $\overline{12)16}$ | $\overline{12)18}$ | $\overline{12)11}$ | $\overline{12)30}$ |
| $1\frac{6}{11}$    | $1\frac{1}{12}$    | $1\frac{1}{6}$     | $1\frac{1}{4}$     | $1\frac{1}{3}$     | $1\frac{1}{2}$     | $1\frac{1}{4}$     | $2\frac{1}{2}$     |

| 196                  | 197                  | 198                  | 199                  | 200                  | 201                  | 202                  | 203                  |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| $\overline{2,0)4,5}$ | $\overline{2,0)4,5}$ | $\overline{3,0)4,0}$ | $\overline{3,0)4,5}$ | $\overline{4,0)5,0}$ | $\overline{5,0)9,0}$ | $\overline{5,0)7,5}$ | $\overline{6,0)8,0}$ |
| $2\frac{5}{20}$      | $2\frac{1}{4}$       | $1\frac{1}{3}$       | $1\frac{1}{2}$       | $1\frac{1}{2}$       | $1\frac{1}{5}$       | $1\frac{1}{2}$       | $1\frac{1}{3}$       |

| 204                  | 205                   | 206                   | 207                   | 208                     | 209                    |
|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|------------------------|
| $\overline{6,0)7,0}$ | $\overline{2,0)22,0}$ | $\overline{4,0)46,0}$ | $\overline{5,0)99,0}$ | $\overline{2,00)60,00}$ | $\overline{3,00)4,50}$ |
| $1\frac{1}{6}$       | 11                    | $11\frac{1}{2}$       | $19\frac{1}{2}$       | 30                      | $1\frac{1}{2}$         |

## DIVISION.

| 210                               | 211                    | 212       | 213       | 214       | 215       |
|-----------------------------------|------------------------|-----------|-----------|-----------|-----------|
| 3,004,50                          | 25)51(2 $\frac{1}{15}$ | 45)63(1   | 53)84(1   | 41)92(2   | 86)94(1   |
| <u>1 <math>\frac{1}{2}</math></u> | <u>50</u>              | <u>45</u> | <u>53</u> | <u>82</u> | <u>86</u> |
|                                   | 1                      | 18        | 31        | 10        | 8         |

| 216       | 217       | 218       | 219       | 220       | 221       |
|-----------|-----------|-----------|-----------|-----------|-----------|
| 45)90(2   | 25)76(3   | 18)450(25 | 28)681(24 | 74)829(11 | 89)989(11 |
| <u>90</u> | <u>75</u> | <u>36</u> | <u>56</u> | <u>74</u> | <u>89</u> |
| <u>00</u> | 1         | 90        | 121       | 89        | 99        |
|           |           | 90        | 112       | 74        | 88        |
|           |           | <u>00</u> | 9         | 15        | 10        |

| 222       | 223           | 224             | 225            |
|-----------|---------------|-----------------|----------------|
| 22)989(44 | 210)45891(218 | 899)4589761(510 | 987)247531(250 |
| <u>88</u> | <u>420</u>    | <u>4495</u>     | <u>1974</u>    |
| 109       | 389           | 947             | 5013           |
| <u>88</u> | <u>210</u>    | <u>899</u>      | <u>4935</u>    |
| 21        | 1791          | 4861            | 781            |
|           | <u>1680</u>   | <u>4495</u>     |                |
|           | 111           | 366             |                |

| 226                  | 227                    |
|----------------------|------------------------|
| 889438)445798438(501 | 98978791)4897984874(49 |
| <u>4447190</u>       | <u>395915164</u>       |
| 1079438              | 938833234              |
| <u>889438</u>        | <u>890809119</u>       |
| 190000               | 48024115               |

## FIGURES.

1 2 3 4 5 6 7 8 9 10 11 12

These model figures have been prepared, after carefully consulting several skilful accountants, and afterwards approved by highly competent judges, who also concurred in opinion that the style of figures adopted should be *plain* and unadorned, so that mistakes may be avoided, which sometimes involve important results. Habits of precision in the Primary Schools, will secure success in this respect, which is especially necessary in a commercial metropolis.

## SYSTEM OF WRITING.

---

*The following System of Writing is to be taught by Lecture, the Lessons being presented on the Black Board, before the whole Class or School.— When the pupils are advanced to joining hand, the copies are also to be written on the Black Board.*

**Ques.** By which letter do you regulate the proportions and curves of the other letters ?

**Ans.** The letter O.

**Ques.** What should be the breadth of the O ?

**Ans.** It should be equal to half its length.

**Ques.** How should the curves of the other letters be formed ?

**Ans.** They should have the same breadth as the O.

**Ques.** How broad should be the loops or folds of the j, g, or y ?

**Ans.** The same breadth as the O.

**Ques.** What should be the length of the first class of letters which extends above the short letters viz ; t, d and p ?

**Ans.** One O and a half long, or half an O above the short letters.

**Ques.** What is the length of the next class ?

**Ans.** Twice the length of the O.

**Ques.** How far should the stems of the p and q extend below the line ?

**Ans.** Once the length of the O.

**Ques.** How far must the length of the j, g and y, extend below the line ?

**Ans.** Once and a half length of the O.

**Ques.** Where should the hair-stroke of the loops cross the body-stroke ?

**Ans.** In the middle.

*Ques.* In the bottom turns of the i, u, and t, &c., what portion of the space should be devoted to the curve ?

*Ans.* One quarter of the space of the short letters.

*Ques.* What portion of the space ought to be devoted to the upper turns of the m, n, v, &c. ?

*Ans.* The same as to the bottom turns i, e,—one fourth.

*Ques.* What portion should be devoted to the attainment of the full shade at the top of the m, n, v, &c. ?

*Ans.* One fourth.

*Ques.* What portion ought to be devoted to the decrease in the shade of the i, u, t, &c. ?

*Ans.* The same as to the attainment of the full shade, or, one quarter.

*Ques.* What should be the height of the capital letters for text hand ?

*Ans.* As high as the stems of the b, h, k, &c., or twice as high as the O.

---

#### QUESTIONS FOR RUNNING HAND.

*Ques.* By what letter do we regulate the breadth of the curves and proportions of the letters in fine hand ?

*Ans.* The O.

*Ques.* What are the proportions of the O ?

*Ans.* The breadth should be equal to half its length.

*Ques.* How should the curves of the other letters be formed ?

*Ans.* They should have the same breadth as the O, including the turns of the ascending and descending loop letters.

*Ques.* What should be the height of the first class which extends above the short letters, viz: the d, t, and p, &c. ?

*Ans.* Twice the length of the O.

*Ques.* What should be the length of the loop letters ?

*Ans.* Twice the height of d, p, and t.

*Ques.* How far should the p and q extend below the line ?

*Ans.* Twice the length of the O.

*Ques.* How long should the ascending loop letters be, compared with the descending?

*Ans.* The same.

*Ques.* What should be the height of the Capital Letters in ordinary writing?

*Ans.* The same as the loop letters.

*Ques.* What should be the distance between words in ordinary writing?

*Ans.* The space of an m.

*Ques.* What should be the distance between sentences?

*Ans.* The space of 2 m's.

---

#### QUESTIONS FOR CAPITALS.

*Ques.* What should be the form of those capital letters whose bottom curves turn to the left?

*Ans.* A circular form.

*Ques.* How high should the curve be formed?

*Ans.* Half as high as the letter itself?

*Ques.* What form should be given to those letters which end with a curve turning to the right?

*Ans.* The form of Capital O.

*Ques.* How high should this curve be made?

*Ans.* Half as high as the letter.

*Ques.* With what characters should we commence the capitals F, H, K and T, &c.?

*Ans.* A character similar to the semi-capital N.


*Ques.* With what characters do we end the N, V and W?

*Ans.* With a character similar to the small i.

*Ques.* In what place should the hair-stroke cross the body of the C, E, H, K, L, S and X?


*Ans.* In the middle.



 The following is a list of words for the Large Copy Boards usually placed against the walls, beneath, or above the window frame.

Emulation is laudable.  
 Gratitude evinces worth.  
 Celebrate virtuous actions.  
 Freedom is man's right.  
 Liberty is invaluable.  
 Hear sound argument.  
 Let all your diversions be innocent.  
 Useful employment yields pleasure.  
 Adorn your mind with learning.

Imitate the honest man.  
 Knowledge is treasure.  
 Deal justly with all.  
 Bestow praise on merit.  
 Maintain moral habits.  
 Neglect no means of improvement.  
 Prevention is better than cure.  
 Religion is the foundation of peace.  
 Thou God seest me.

 The following form, which designates the Monitors from week to week, is placed on a card, and hung up in the School-room. The oblong spaces represent cards to be inserted in an opening on the larger card,—the names written thereon in pencil, and changed as required.

## NAMES AND OFFICES OF MONITORS.

### MONITORS OF ORDER AND INSTRUCTION.

|                       |                      |                      |                      |
|-----------------------|----------------------|----------------------|----------------------|
| 1st Monitor of Order. | <input type="text"/> | <input type="text"/> | Monitor of Reading.  |
| 2nd " "               | <input type="text"/> | <input type="text"/> | " Arithmetic.        |
| 3rd " "               | <input type="text"/> | <input type="text"/> | " Dictation.         |
| Teacher's Monitor.    | <input type="text"/> | <input type="text"/> | Assistant's Monitor. |

### MONITORS OF BUSINESS.

|               |                      |                      |                      |
|---------------|----------------------|----------------------|----------------------|
| Late Monitor. | <input type="text"/> | <input type="text"/> | Book Monitor.        |
| Stair "       | <input type="text"/> | <input type="text"/> | Ink "                |
| Yard "        | <input type="text"/> | <input type="text"/> | Ventilation & fire " |
| Street "      | <input type="text"/> | <input type="text"/> | Water "              |
| Door "        | <input type="text"/> | <input type="text"/> | Broom, &c. "         |
| Pen "         | <input type="text"/> | <input type="text"/> | Pencil "             |

"A PLACE FOR EVERYTHING, AND EVERYTHING IN ITS PLACE."

**LIST OF APPARATUS, &c. FOR A PRIMARY SCHOOL.**

An Alphabet Board, with the letters in writing character and Roman Text.

A moveable Black Board.

Numeral Frame.

A foot rule.

A Spelling Stick, with dissected letters.

A five inch globe, with a hook to suspend it from a string.

A set of Outline Maps.

A box of Geometrical Solids.

A box of Minerals, (28 specimens,) viz :—1. Quartz. 2. Felspar. 3. Mica. 4. Granite. 5. Hornblend. 6. Sienite. 7. Pudding-stone. 8. Burr-stone. 9. Sand-stone. 10. A crystal of Quartz. 11. Granular Limestone. 12. Compact Lime. 13. Statuary Marble. 14. Gypsum. 15. Hydraulic Lime. 16. Rhombic Spar. 17. Serpentine. 18. Precious Serpentine. 19. Soap-stone. 20. Talc. 21. Asbestos. 22. Lava. 23. Pumice-stone. 24. Coral. 25. Organic remains. 26. Iron ore. 27. Anthracite Coal. 28. Bituminous Coal—and a small cabinet of natural and artificial objects, for illustrating common things.

**LIST OF APPARATUS, &c. FOR THE UPPER SCHOOLS.**

The alphabet in writing characters, and the Hemispheres on the walls.

Moveable Black Boards, and others affixed to the walls.

Maps.

Twenty inch Celestial and Terrestrial Globes.

A manual Orrery, (to move by hand.)

A five inch Globe with moveable horizon, rings of stars, &c. with apparatus for illustrating the orbit, plane of orbit, inclination of orbits, nodes, &c.

### DICTATION BOARDS.

The following is the list of words for the purposes of Dictation—the Boards on which they are painted are  $\frac{1}{4}$  of an inch in thickness, all of the same width, but of four different lengths—each board has a brass socket inserted in the lower edge, to prevent its wearing by moving on the pivot on which it is placed when in use. They are kept in a box  $19\frac{1}{4}$  by  $14\frac{1}{4}$  and 6 inches deep—on the sides of the box are grooves, for the purpose of separating the Boards, and preventing them from rubbing. The Dictation Boards, are also used as writing copies.

#### FIRST SET,

7 by 6-

|                   |                  |                  |                  |
|-------------------|------------------|------------------|------------------|
| is<br><i>it*</i>  | no<br><i>go</i>  | so<br><i>sow</i> | in<br><i>inn</i> |
| sea<br><i>see</i> | be<br><i>bee</i> | of<br><i>off</i> |                  |

#### SECOND SET.

8 by 6

|                   |                   |                   |                   |
|-------------------|-------------------|-------------------|-------------------|
| dig<br><i>fig</i> | hot<br><i>not</i> | boy<br><i>man</i> | cat<br><i>rat</i> |
| tax<br><i>wax</i> | dog<br><i>hog</i> | bad<br><i>lad</i> | eye<br><i>ear</i> |
| ink<br><i>pen</i> | son<br><i>sun</i> |                   |                   |

\* The words in italics are on the reverse of the Board.

## THIRD SET.

11 by 6.

|                      |                     |                     |                     |
|----------------------|---------------------|---------------------|---------------------|
| pink<br><i>rose</i>  | rain<br><i>snow</i> | cake<br><i>bake</i> | hand<br><i>foot</i> |
| pail<br><i>hail</i>  | look<br><i>gaze</i> | ship<br><i>boat</i> | ford<br><i>bird</i> |
| brave<br><i>cave</i> | head<br><i>hair</i> | mary<br><i>girl</i> |                     |

## FOURTH SET

14 by 6.

|                         |                       |                          |                       |
|-------------------------|-----------------------|--------------------------|-----------------------|
| jump<br><i>quick</i>    | lard<br><i>tallow</i> | brother<br><i>sister</i> | uncle<br><i>aunt</i>  |
| father<br><i>mother</i> | leaf<br><i>leaves</i> | flour<br><i>flower</i>   | calf<br><i>calves</i> |
| beef<br><i>mutton</i>   | fifth<br><i>ninth</i> | butter<br><i>cream</i>   | cheese<br><i>milk</i> |

# SYNOPSIS OF THE MANUAL

## FOR PRIMARY SCHOOLS.

### FIRST. .

1. The official records of the school should be duly written up, viz :—The *Register*, *Weekly Report Book*, *Class Books*, and *Annual Statistic Record*.
2. The *Weekly Report Book* should be closed *weekly*, on Friday, P. M.
3. Promotions through the classes should be noted, when the pupil enters the lowest division thereof.

### SECOND.

1. In teaching the Lesson Cards, the pupils are to name the consonants on the side margins, and the vowels at the top, as pointed out to them; and then to pronounce the syllables as found in the paragraphs of the Lesson.
2. They should also name the Letters in series, till they acquire a knowledge of their regular order.
3. Spell (with the books opened) all the difficult words of the lessons before reading.
4. When reading, do not require the pupils to spell the words they cannot pronounce.
5. At the close of the Exercise, question them on the subject of the reading lesson.

### THIRD.

1. Dictation should be taught three half hours daily.
2. In the 2d, 3d, and 4th classes, the Dictation Boards are to be used: Thus, the Teacher says, "Look," then pronouncing the word, points to each letter—again pronounces it, and says, "write."
3. When perfect in this process, the pupils are required to write the words from the Dictation Board, without having the letters pointed out; and after that, they write the words as pronounced, without the use of the Board, and then other easy words in the same manner.
4. The 5th and 6th classes should also write the regular list of words, adding the definitions as dictated by the Teacher.

5. These classes are also to be exercised in writing from Dictation those words of the spelling columns found on the Lesson Cards, which are distinguished by a separating line.

6. In the lowest classes, all should respond simultaneously to the word dictated. But in the highest classes, the response is to be made only by the pupil at the head of the class: and lastly, they should write words from dictation without any response.

#### FOURTH.

1. All the pupils from the abecedarian to the highest class, should pass alternately into the class room, in large divisions, and should there have their lessons explained and illustrated by varied methods.

#### FIFTH.

1. The Teacher should give some time during school hours, or afterwards, to special drill of the Draft Monitors, to teach them the duties of their office, and practice them in the methods of teaching.

#### SIXTH.

1. The scholars are to perform all the exercises of the Arithmetical Key, before proceeding to any other arithmetical exercises.

2. The Teacher should dictate the regular series of sums in each rule,—and as each line of figures is written, it should be read by the pupils before proceeding to add, subtract, &c.

3. The Tables should be first taught them by dictation, and explained by the numeral frame, marks on the black board, the cubic solids, and other familiar illustrations, before allowing them to use the Table Book.

4. Teach them to add without connecting the process, by repeating each number, thus: two and three are five, and 6 are 11: but say, two, five, eleven: and in setting down the result, let them understand that they set down all over 10, and carry one for every ten to the next line.

5. Require them to correct errors audibly, at the same time signifying it by raising the hand, as an evidence of attention.

6. Examine them by the following methods: first, each taking part in the process, while performing the whole on his own slate. Second, by an exercise on the black board, each performing *part*, or the *whole* of the process aloud: and lastly, let each perform the work silently on their own slate—then examine the work, and approve the result.

7. Observe whether the figures are correctly arranged, and if they are formed after the model figures.

## SEVENTH.

1. In the general drill of the school, place yourself in a position at, or near the platform, so as to be seen by all. Use the Turkish signal (clapping the hands,) requiring the pupils then to look.
2. On these occasions, signals should be used instead of orders given.
3. In arranging the school when in draft, or at their seats, do not guide them by the hand, instead of by signal.
4. In correcting errors or any disorder in the drafts, when you are supervising the general exercise of reading in drafts; do not correct the pupils *yourself*, but address the *Monitors of the drafts*, requiring it of them.

## EIGHTH.

1. In sitting to write from Dictation, or to write copies, see that the slate is placed with the left end opposite the centre of the breast; and that the slate is parallel with the desk.
2. Direct the pupils to sit erect, only inclining the head, the feet flat on the floor.
3. At dictation, they should write the words in columns, and write them quickly.
4. At each interval of cleaning slates, go through a suitable drill for physical exercise, before writing again.
5. The sponges should be used simultaneously at a signal, and the last written exercise allowed to remain on the slate.

## NINTH.

1. In seating the classes, give each pupil a seat of the appropriate height, as far as practicable, viz : seating the *small ones* in front, and the *tall ones* at the rear desks.
2. Give each pupil also his appropriate number in the School-room and the yard.
3. Every movement for change of exercise, should be done quickly, and the next exercise should proceed without any delay.
4. One or more of the Teachers should accompany the children to the yard, and they should there be specially trained to decent habits.

## TENTH.

1. The children should generally be allowed freedom to play as they please; but they may occasionally be trained to little amusing games of exercise under the direction of a Teacher, with singing, jumping, &c.
2. Special provision should be made for daily cleansing the privy; dry-sanding the floor, and occasionally scrubbing it with wet sand.

3. When there is a water drain (for the boys,) a bucket or two of water should be thrown into it daily.

4. In general movements the children should keep their hands at their sides, though they may be sometimes allowed to place them behind crossed on the hips, and occasionally to use them in clapping.

5. In going up and down stairs, they should move in a single line, allowing each to put the right hand on the rail or balluster.

The Monitors should be duly encouraged by expressions of approbation; by the grant of special privileges, and by commending them to the school sections.

#### ELEVENTH.

1. In teaching Common Things, objects should be used as frequent as possible, and definitions given in a brief and clear manner, and in all oral instruction, cultivate habits of observation, by presenting objects to the eye, &c.

2. Geography should be taught by the use of the maps and the small globe. The eye should be brought constantly into service, to prevent committing to memory set lessons.

3. Use the map of the hemispheres first, and on it teach the points of the compass, latitude and longitude, and all the conspicuous sub-divisions of land and water.

4. Use the little globe for the same purpose, and also to teach zones, meridians, parallels of latitude, explaining climate, &c.

#### TWELFTH.

1. The children should be daily inspected by the Teacher at each opening of the school, and the dirty ones sent to the wash-room to be cleansed. This should never be a matter of *form* only, but of *fact*.

2. All the *Teachers* and scholars should be required to be present at the opening and closing of the school.

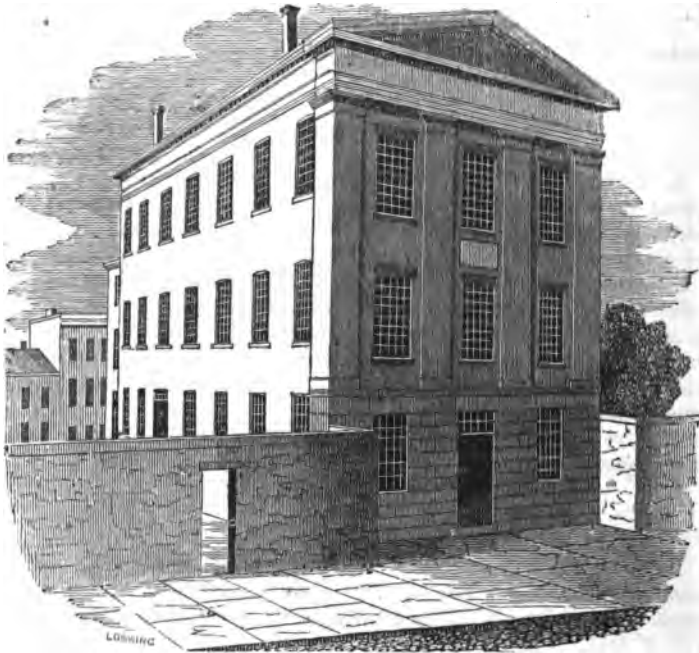
3. The Teachers should avail themselves of the frequent opportunities afforded by the nature of the lessons, incidents of the day, and the actions of the pupils, &c., to promote their moral improvement.

#### THIRTEENTH.

1. The Teacher should by no means fail to make the Thermometrical record as required at the winter season; and to see that all the means provided for the purposes of ventilation are duly attended to.

2. The window blinds and curtains should be used only when required for the purpose of excluding the rays of the sun, excepting in respect to screening from observation, and then the curtain should be so managed as not to exclude light from the school room.





### PUBLIC SCHOOL NO. 17.

The building is 80 by 42 feet front. The buildings erected since this, have some slight deviation from these plans, principally by introducing additional and larger class rooms.

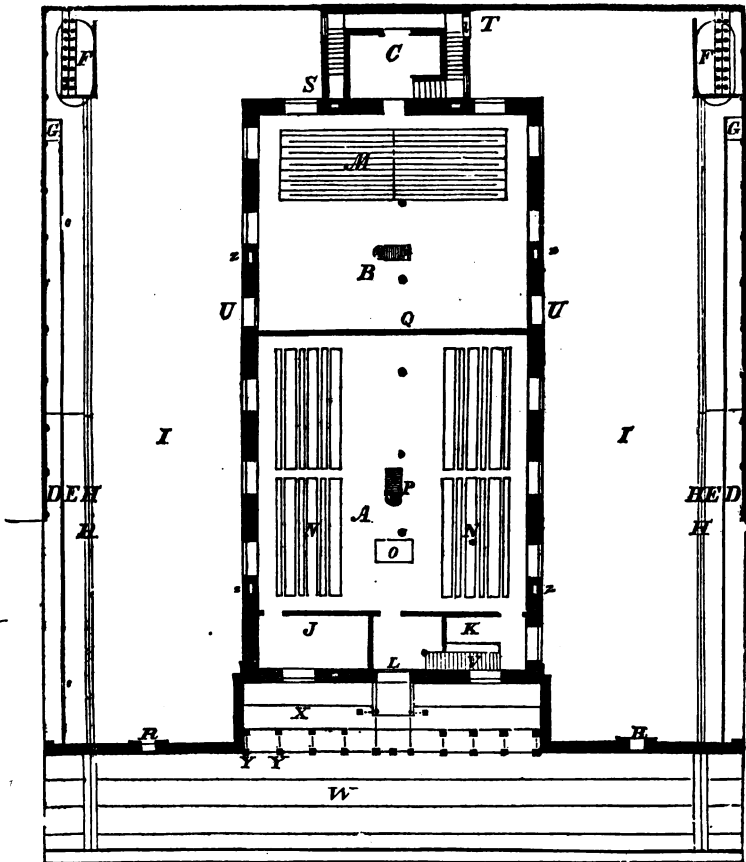


FIG. 1.

## GROUND PLAN OF PRIMARY DEPARTMENT, YARDS, WOOD-HOUSES, &amp;c.

A—Primary School room—39 by 38 feet.

B—Infant do do 39 by 30 feet.

C—Room in Stair building for brooms, brushes, pails, &c.

J—Boys' Ward-robe,  $16\frac{1}{2}$  by 8 feet.


K—Girls' do  $12\frac{1}{2}$  by 8 feet.


M—Gallery, 32 by 11 feet—seats for 200 children.

N, N—Desks, each  $16\frac{1}{2}$  feet long—each 12 or 13 scholars.

O—Teachers' table.

L—Front doorway, or main entrance.

 The stations for the classes, when reading, is in the centre passage, fronting the desks.

 All doors open outward.

- R, R—Gates, or scholars' entrance to the yard.  
 U, U—Scholars' entrance to Primary Department.  
 V—Stairs front entrance to Girls' and Boys' Department.  
 S—Scholars' entrance—Boys' Department.  
 T—Scholars' entrance, Girls' Department.  
 Q—Sliding doors—28 by 9½ feet.  
 P, P—Stoves.  
 Z, Z—Flues, or chimnies, for stove pipes.  
 I, I—Play ground, or yard—102 by 26 feet; paved with brick.  
 D, D—Wood-houses, 83 by 2½ feet, and 6 feet high; the front of which is made of hemlock strips, 4 by 2 inches, set perpendicularly 2 inches apart, to allow a free circulation of air.  
 E, E—Roof of wood-houses—projecting 3½ feet beyond the front of the houses; forming a shelter for the Scholars in stormy weather.  
 H, H—Gutters of blue stone, to conduct the waste water from the wood-houses and yards to the street.  
 F, F—Privies, 12 by 8 feet.  
 G, G—Boxes for sand, 3 by 2½ feet.  
 W—Front walk, blue stone flagging.  
 X—Court Yard—8½ feet wide; blue stone flagging.  
 Y, Y—Stone foundation blocks, to which the iron railing in front is secured.

The steps in the stair-building, by which the scholars enter and retire from school, are of blue stone, 3 inches thick by 12 inches wide, and are expected to last as long as any part of the building. This method was adopted to avoid the necessity of putting in new steps every few years, (which has heretofore been necessary where wooden steps have been used,) and also to lessen the noise consequent on a great number of children going either up or down wooden steps, at the same time; thus far the experiment has succeeded admirably, and is now adopted for both Public and Primary Schools.

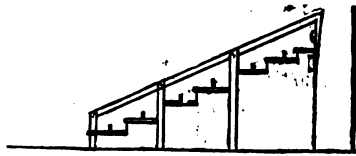


FIG. 5—End view of the Gallery, (marked M on Fig. 1)—containing seven seats, each 31 feet long, with backs 7 inches high, and extending the whole length; the Gallery is set 2½ feet from the wall, and is left entirely open underneath, and is used as a ward-robe for the youngest children.

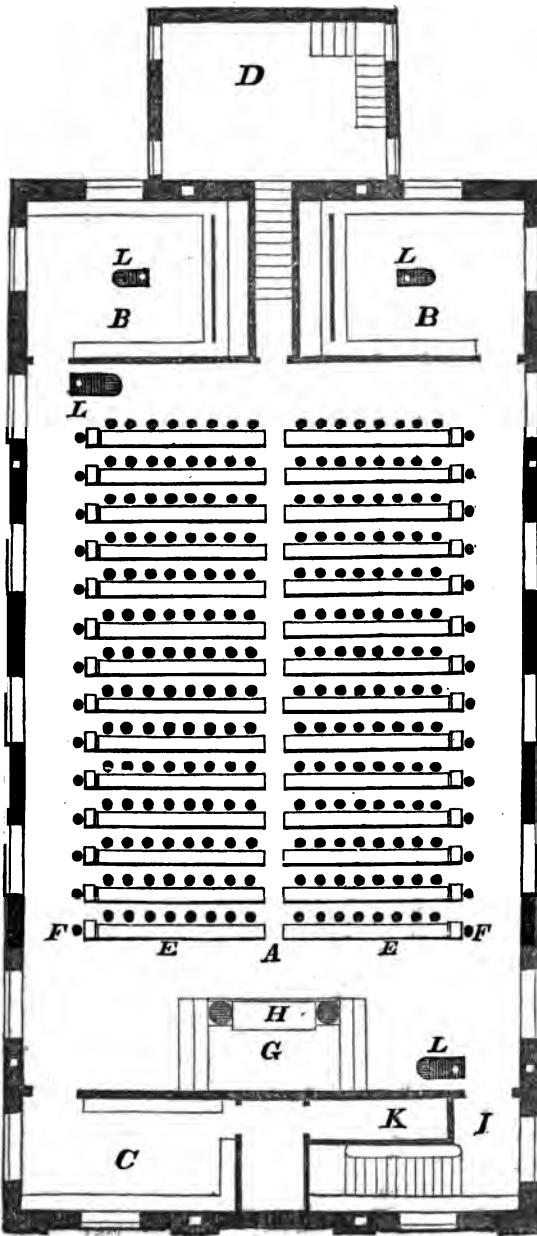


FIG. 2.

GROUND PLAN OF THE BOYS' DEPARTMENT, OR THIRD STORY; AND  
WILL ANSWER ALSO FOR THE SECOND STORY, OR GIRLS' DEPARTMENT,  
EXCEPT SOME SLIGHT DIFFERENCES IN THE STAIRS.

A—School Room.

B, B—Recitation Rooms.

C— do do.

D—Receiving Room, and Scholars' Entrance; this room is furnished with a sufficient number of cloak and hat hooks, to accommodate all the Scholars in each department.

I—Front entrance and stairway.

K—Book Closet.

L, L, L, L—Stoves.

G—Platform.

H—Teachers' Desk, with a shelf at each end for globes.

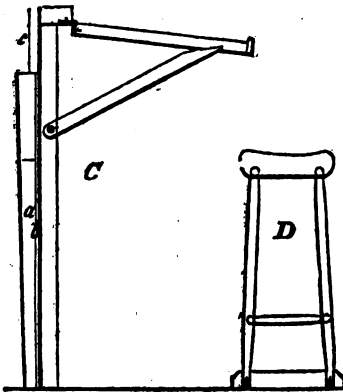
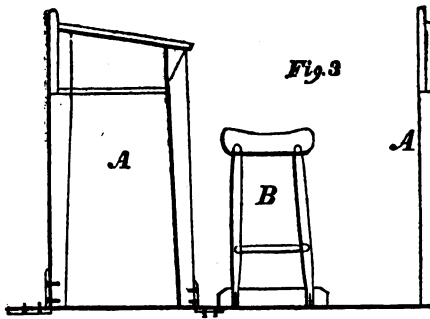
E, E—Scholars' Desks; each 12 feet 8 inches long—19 inches for each scholar.

F, F—A seat at the end of the Desk with a moveable shelf for the purpose of a Desk\*

The front of the Teachers' Desk, toward the scholars, is formed by a black board 3 feet wide, and extending the whole length of the desk.

(For further explanation of the desks and stools, see Fig. 3.)

\* These in the recent buildings have been omitted, and less space given between the ends of the desk and side walls, to admit of additional seats.



**SECTION OF DESK AND SEAT—SHOWING THE RELATIVE HEIGHT, DISTANCE, AND MANNER IN WHICH EACH IS SECURED TO THE FLOOR, &c.**

The desk marked A, is 26 inches high on the lowest side : the top is 14 inches wide, and inclines  $1\frac{1}{2}$  inches : the lines below the top in the figure, are intended to represent the end of a shelf, or bottom, which is placed about 5 inches below the top, and extends the whole length of the desk ; forming in connection with the top, and the pieces that are placed between every two seats, a convenient place for books, &c.

The slates are placed directly against the back, through openings left in the top, and rest on the shelf before referred to.

C, D, the seat at the end of the desk—its situation may be seen by referring to F, F, on Fig. 2.

The top of this desk is hung with hinges, and supported by a moveable brace : the top and brace let down, to afford more space at other times.

E, the top of the seat.

**B, side view of a stool, and the method of securing it to the bottom, which extends the whole length of the desk, (marked E on Fig. 2). All the stools belonging to each desk, are fastened to the same bottom, which being secured to the floor, keeps the scholars in line while at the desk. The recent buildings have separate cast iron seats with backs.**

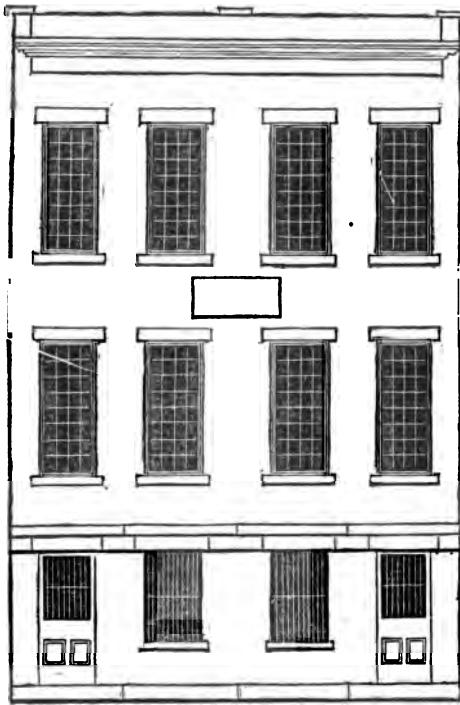


FIG. 1.

A PRIMARY SCHOOL. (Front view.)

Elevation of a Primary School, built on a lot of ground 25 by 100 feet. The first story is used as a play ground, which is more fully explained in Fig. 2. The main building is 25 feet front, by  $62\frac{1}{2}$  feet deep: the stair building is 27 feet by 11 feet 8 inches. The main building is placed 6 or 8 feet from the line of the street, according to the depth of the lot. The walls above the ground are built entirely of brick. The roof is of tin; and the gutters of copper. The lower doors and windows have iron bars inserted, for safety, and to admit a free circulation of air in summer, but are closed with sashes in the winter.

The sashes in all the Primary Schools, are hung the same as those in the Public Schools, so as to be moved up and down at pleasure. The first story, or play-ground, is  $7\frac{1}{2}$  feet high in the clear. The second and third stories, each 12 feet high in the clear.



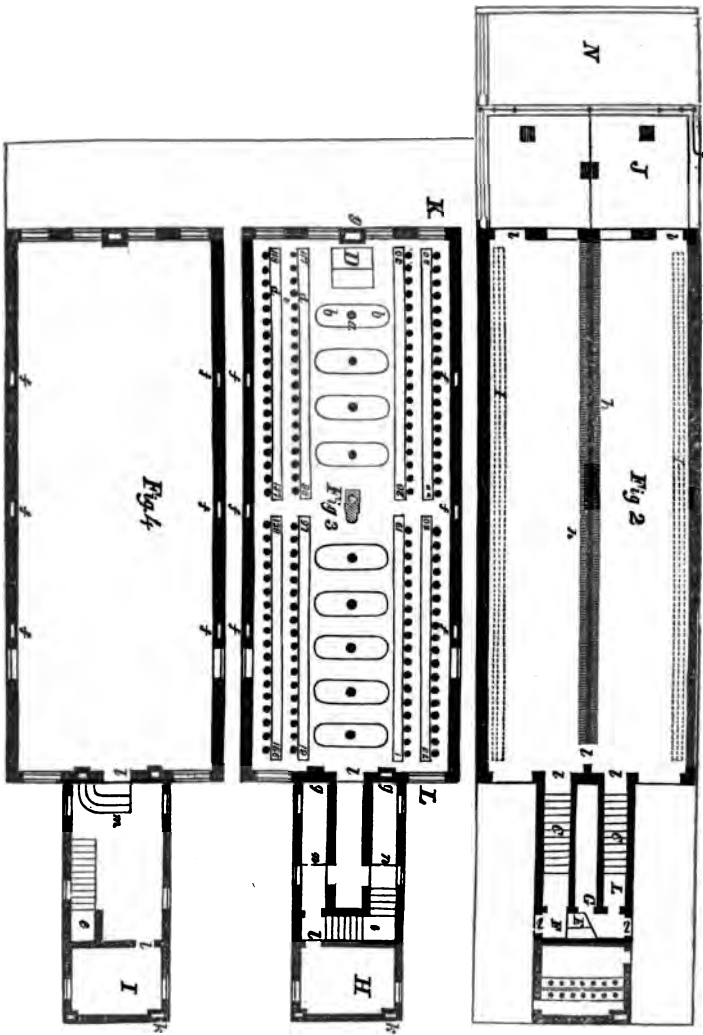


FIG. 2.

GROUND PLAN OF FIRST STORY, OR PLAY-GROUND, YARDS, PRIVIES, STAIR BUILDING, &c.

N—Side walk, blue stone flagging.

J—Court yards—blue stone flagging, separated from the side walk by iron railing.

- C, C—Stairways; the side on which Fig. 2, is marked, leading to the Boys' Department, or third story.  
 L, F—Places for pine (kindling) wood, under the stairs.  
 E—Sand box for both departments.  
 h, h—Pile of wood, about  $4\frac{1}{2}$  feet high.  
 I, I—Lines on which the scholars are marshalled, previous to entering school.

FIG. 3.

## GROUND PLAN OF THE SCHOOL ROOM, 60 BY 23 FEET.\*

- D—Teachers' platform and table (moveable on rollers.)  
 d, d—Desks for scholars: the black dots are iron chairs.  
 a—Cast iron lesson stands, on which two lesson boards are hung, to accommodate classes standing on the line b, b.  
 H—Class Room.  
 g, g, g—Flues, or chimnies for stove pipes.  
 f, f, f, &c.—Air flues, or recesses for ventilation, extending from the second story to the garret.  
 C—Stove, the pipes extend from the stove to the front into the flue, and also to the rear.

FIG. 4.

## GROUND PLAN OF THE THIRD STORY

This is the same as the second story, except the stairs.

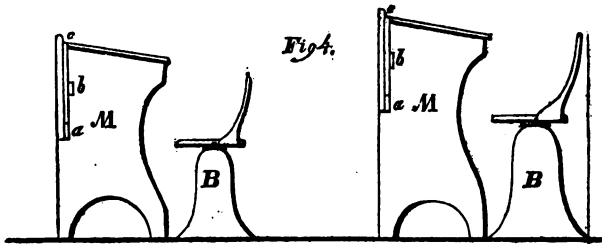


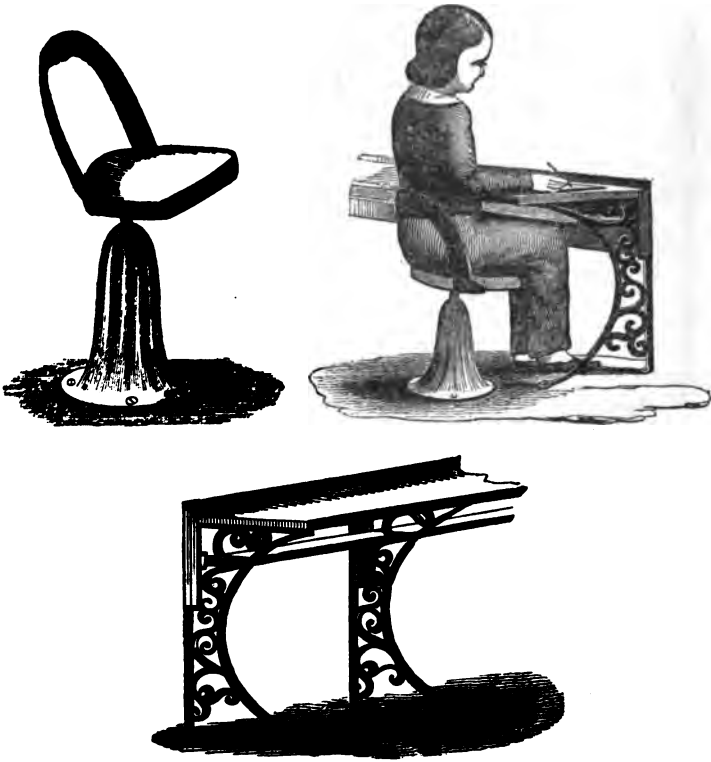
FIG. 4.

Primary School furniture—showing the relative height and distances of the seats and desks. The desks are nearly the same pattern as those formerly used. The tops are  $10\frac{1}{2}$  inches wide, instead of nine as formerly; and the uprights, or legs, are cut out on the edge towards the chair. The highest desk is 1 foot 7 inches

\* This story is  $7\frac{1}{2}$  feet in the clear, with a partition wall through the middle to give separate play grounds for the boys' and girls' schools. This wall is 8 inches thick; about  $2\frac{1}{2}$  feet of the upper part is open work for ventilation.

on the lowest side; the lowest, 1 foot 5 inches. The chairs are 12 and 10 inches. The seat of the chair is about 8 inches wide, and is intended to be set so that the front of the seat and the edge of the top of the desk shall be perpendicular, one with the other, so that the scholars may sit erect, and receive the benefit of the back of the chair while writing.

The chairs are of cast iron, (except the seat,) and are so constructed, that the seat and back may be turned round, while the bottom (marked B,) being screwed fast to the floor, remains stationary.



THE above cuts represent the chair and cast-iron scroll attached to the desk, as used in the Public Schools of New-York, Manufactured by J. L. MOTT, 264 Water-street.







FH

[The body of the document contains several paragraphs of text that are almost entirely illegible due to extreme blurriness and low contrast. Only faint outlines of lines of text are visible.]

